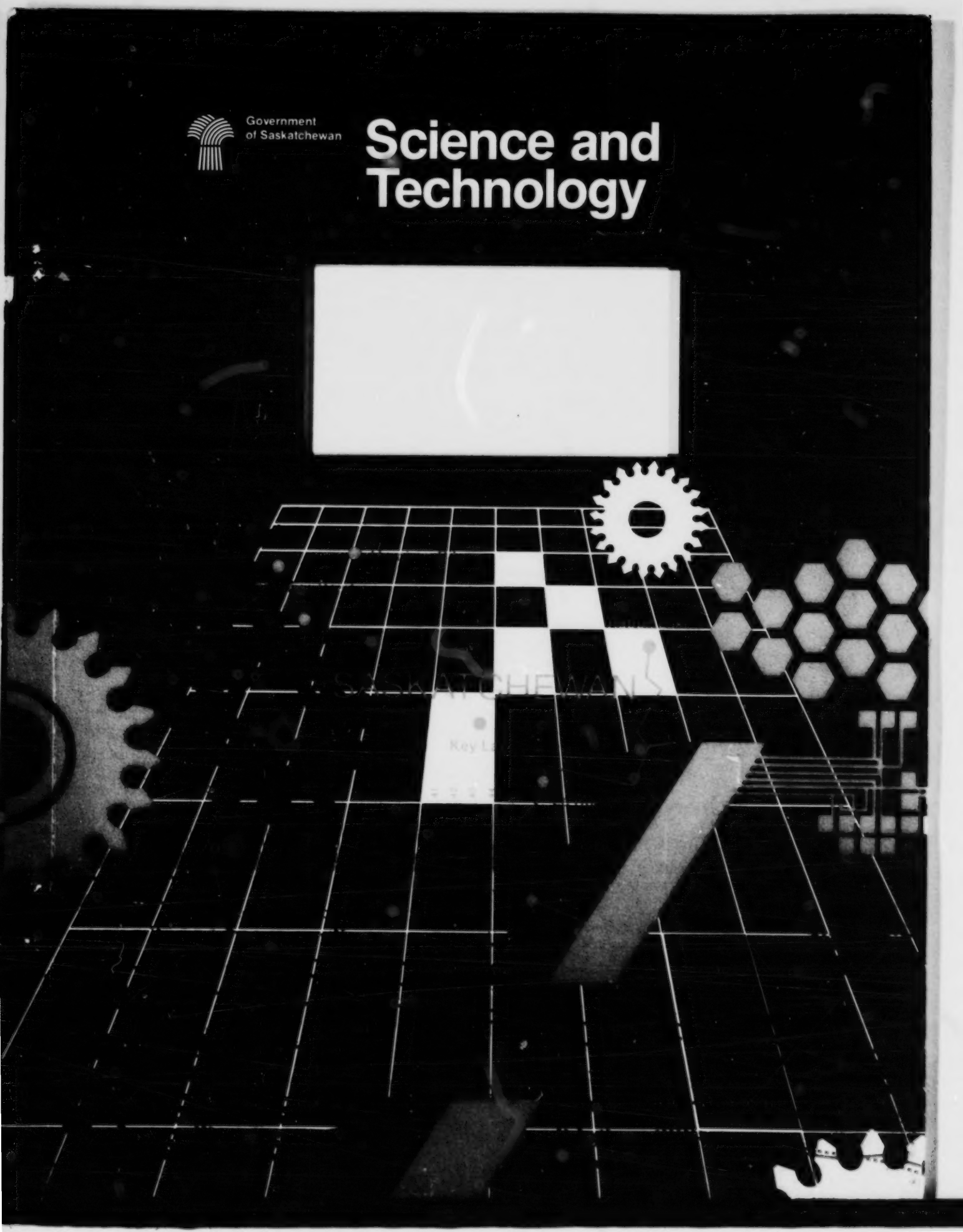
Government of Saskatchewan

Science and Technology



SCIENTIFIC ACTIVITIES OF THE GOVERNMENT

OF SASKATCHEWAN

1986-87 SURVEY RESULTS

A Report Prepared by:

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FOREWORD

This report presents the results of the annual survey of natural and social scientific activities of the Government of Saskatchewan. It provides details of the allocation of resources, both personnel and expenditures, by the Government of Saskatchewan through its departments and agencies to science and technology (S&T). The survey was conducted by Statistics Canada under contract to the Saskatchewan Department of Science and Technology. The field work was conducted by Bert Plaus of Statistics Canada and assisted by Royal Hinther of Saskatchewan Science and Technology.

The information produced in this report can assist decision makers in the organizations involved to coordinate their science activities and deploy their resources more effectively. It assists provincial S&T policy makers to evaluate current science policy and enables them to develop new policies. Statistics Canada uses the data as input for the development of a national aggregate research and development series which is provided to international organizations and users such as the Organization for Economic Cooperation and Development (OECD) and the United Nations Education, Science and Culture Organization (UNESCO).

The definitions of what constitute S&T and related activities are based closely on the OECD's "Frascati Manual", internationally recognized reference work in the field. See page 128 for a brief outline of the definitions used.

Science Surveys, like many other surveys, are based on the respondents' interpretations of definitions and methods of calculation. Accounting records, which use a science based classification are rarely available. Notwithstanding that the data are estimates, they are a good representation of current science expenditures and manpower utilization for the provinces.

Similar surveys have been conducted by Statistics Canada for the following provinces; Ontario and Alberta since 1974, British Columbia from 1977, New Brunswick from 1984, Manitoba since 1985 and Newfoundland from 1986. The province of Saskatchewan has been surveyed since 1975.

The goodwill and efforts of the officials of the responding departments contributed greatly to the success of the survey. The assistance provided by the Department of Science and Technology is gratefully acknowledged by Statistics Canada.

TABLE OF CONTENTS

Highlights Page

TEXT TABLE I. Scientific Activities of the Government of Saskatchewan 8

TEXT TABLE II. Total Expenditures on Scientific Activities, by Science Type, 1980-81 to 1987-88 9

TEXT TABLE III. Total Expenditures on Scientific Activities, by Sector of Performance, 1986-87 11

TEXT TABLE IV. Total Expenditures on Scientific Activities, by Source of Funds, 1986-87 11

TEXT TABLE V. Personnel Engaged in Intramural Activities, by Science Type, Activity and Category, 1986-87 12

TEXT TABLE VI. Objectives of Total Science Expenditures 13

Statistical Tables

	All Sciences		Natural Sciences		Social Sciences	
	Table	Page	Table	Page	Table	Page
Historical Series 1980-81 to 1987-88:						
Total Expenditures:						
by Activity	1	16	23	60	45	90
by Department or Agency	2	17	24	61	46	91
by Performer	3	19	25	62	47	93
Current Expenditures on R&D:						
by Department or Agency	4	20	26	63	48	94
by Performer	5	22	27	64	49	95
Personnel Engaged in Scientific Activities,						
by Activity and Category	6	23	28	65	50	96

TABLE OF CONTENTS - Continued

Statistical Tables - Concluded

	All Sciences		Natural Sciences		Social Sciences	
	Table	Page	Table	Page	Table	Page
Expenditures in 1986-87 Fiscal Year:						
Total Expenditures:						
by Sources of Funds	7	24	29	66	51	97
by Activity and Performer	8	26	30	67	52	99
by Department or Agency and Performer	9	27	31	69	53	101
Total Expenditures by Department or Agency and Activity	10	29	32	70	54	103
Total Expenditures on R&D by Department or Agency and Performer	11	31	33	71	55	105
Intramural Expenditures by Department or Agency and Type of Expenditure	12	32	34	72	56	106
Personnel Engaged in Scientific Activities, by Department or Agency	13	34	35	73	57	108
Objectives of Expenditures:						
by Department or Agency	14	36	36	75	58	111
by Activity	15	42	37	79	59	118
Estimates for 1987-88 Fiscal Year:						
Total Expenditures:						
by Activity and Performer	16	43	38	80	60	119
by Department or Agency and Performer	17	44	39	81	61	120
Total Expenditures by Department or Agency and Activity	18	46	40	82	62	121
Total Expenditures on R&D by Department or Agency and Performer	19	48	41	83	63	122
Personnel Engaged in Scientific Activities, by Department or Agency	20	49	42	84	64	123
Objectives of Expenditures:						
by Department or Agency	21	51	43	85	65	124
by Activity	22	57	44	88	66	126

TABLE OF CONTENTS - Concluded

Page

Statistical Charts:

Chart 1. Total Expenditures in All Sciences, by Activity, 1980-81 to 1987-88 10

Chart 2. Total Expenditures in the Natural Sciences, by Activity and Performer, 1986-87 68

Chart 3. Personnel Engaged in Scientific Activities in the Natural Sciences, by Activity and Category, 1986-87 74

Chart 4. Objectives of Expenditures in the Natural Sciences, 1986-87 78

Chart 5. Total Expenditures in the Social Sciences and Humanities, by Activity and Performer, 1986-87 100

Chart 6. Personnel Engaged in Scientific Activities in the Social Sciences and Humanities, by Activity and Category, 1986-87 110

Chart 7. Objectives of Expenditures in the Social Sciences and Humanities, 1986-87 117

Appendix:

Definitions 128

The Respondents 130

Indicators of Provincial Scientific Activities 137

Provincial Co-ordinators 150

Publications of Statistics Canada on Science and Technology 151

The following symbols are used in this report:

- `-` nil or zero
- `...` figures are not available or not applicable
- `(r)` revised figures
- `(e)` estimated figures
- `..` amount too small to be expressed

HIGHLIGHTS

Approximately 1.7% of the estimated 1986-87 budgetary expenditures of the government of Saskatchewan was spent on scientific activities. While total government expenditures for 1987-88 are estimated to only increase by less than 1%, scientific expenditures should rise by 13%.

TEXT TABLE I. Scientific Activities of the Government of Saskatchewan

Department or agency	1986-87			1987-88		
	Estimated expenditures	Scientific expenditures	%	Estimated expenditures	Scientific expenditures	%
	($'000,000)		%	($'000,000)		%
Agriculture	231.9	19.7	8.5	171.8	26.4	15.4
Education	753.8	3.8 (1)	0.5	756.2	3.9	0.5
Energy and Mines	19.6	5.4	27.6	17.9	3.6	20.1
Health	1,136.7	9.0	0.8	1,173.5	10.7	0.9
Highways and Transportation	213.9	3.1	1.4	220.8	2.9	1.3
Social Services	361.4	3.2	0.9	378.6	3.2	0.8
Sub-total	2,717.3	44.2	1.6	2,718.8	50.7	1.9
Other (2)	1,030.6	20.7	2.0	1,060.9	22.5	2.1
TOTAL	**3,747.9**	**64.9**	**1.7**	**3,779.7**	**73.2**	**1.9**

(1) Includes Advanced Education and Manpower.

(2) Includes Vote 35 (Grant to the Saskatchewan Research Council).

TEXT TABLE II. Total Expenditures on Scientific Activities, by Science Type, 1980-81 to 1987-88

Science type	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88(e)
	($'000)							
Natural (1)	17,456	19,298	24,333	28,899	29,462	31,384	48,369	57,324
Social	9,086	8,819	8,653	11,678	16,936	19,113	16,580	15,890
TOTAL	**26,542**	**28,117**	**32,986**	**40,577**	**46,398**	**50,497**	**64,949**	**73,214**

(1) Includes Vote 35 (Grant to the Saskatchewan Research Council).

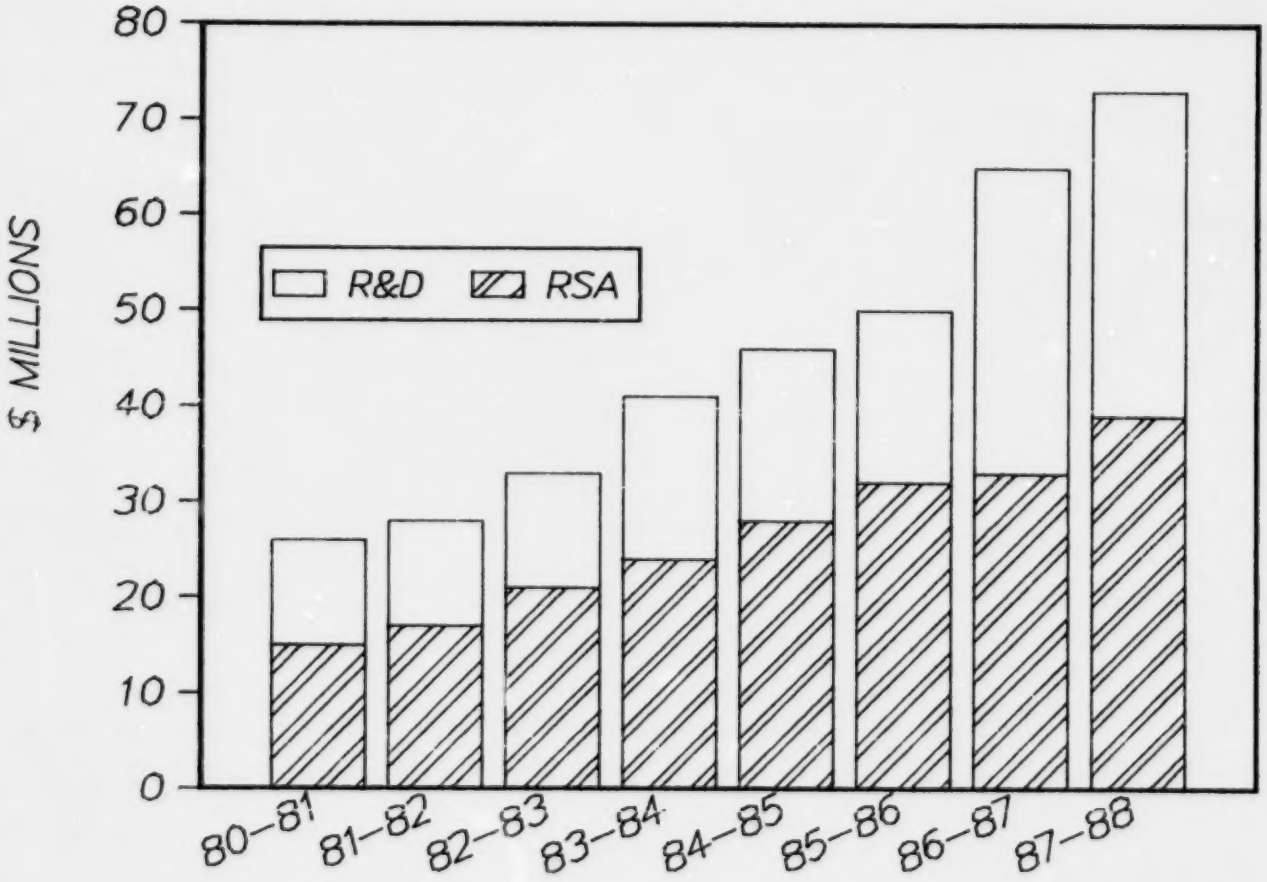
Of the total 1986-87 science expenditures, 74% ($48.3 million) are for natural science activities. Research and development (R&D) account for $31.0 million (64%) of this amount. The remaining $17.3 million is spent on related scientific activities (RSA). Major support of research and development comes from the departments of Agriculture, Energy and Mines, Health and Science and Technology as well as the Saskatchewan Research Council. The special services and studies activity is the major related scientific activity, supported mainly by the department of Health.

Social science activities account for 38% ($16.6 million) of the total 1986-87 Saskatchewan government science expenditure. Ninety five percent of this is spent on related scientific activities. The departments of Advanced Education and Manpower, Finance, Health and Social Services are the major supporters of social science activities.

NOTE: In this report the scientific expenditures of the Saskatchewan Research Council reflect only the yearly grant from the Saskatchewan Government (Vote 35). Additional information on the SRC is available in Science Statistics, Catalogue No. 88-001, Vol. 11, No. 10.

Chart 1. Government of Saskatchewan

Total Expenditures in All Sciences, by Activity, 1980—81 to 1987—88



TEXT TABLE III. Total Expenditures on Scientific Activities, by Sector of Performance, 1986-87

Activity	Intramural	Industry	Universities	Hospitals and health organizations	Saskatchewan Research Council (1)	Other	Total
	($'000)						
R&D	3,898	5,044	7,128	361	7,321	8,064	31,816
RSA	22,296	6,340	2,903	8	108	1,478	33,133
TOTAL	**26,194**	**11,384**	**10,031**	**369**	**7,429**	**9,542**	**64,949**

(1) Includes only Provincial Government payments to the Saskatchewan Research Council (SRC).

The provincial government itself performed 40% of the scientific activities in 1986-87. Most of the RSA funded by the provincial government is performed in-house. However, only 12% of the R&D is performed by the government itself. This year the Industry sector is the largest extramural performer (18%) followed by the University sector (15%).

TEXT TABLE IV. Total Expenditures on Scientific Activities, by Source of Funds, 1986-87

Department or agency	Departmental budget	Transfers from other departments	Transfers from federal government	From trust funds	From other sources	Total
	($'000)					
Agriculture	19,231	-	-	136	382	19,749
Energy and Mines	197	-	2,353	-	2,872	5,422
Health	8,514	-	467	-	29	9,010
Science and Technology	1,339	-	264	2,884	-	4,487
Social Services	3,220	-	-	-	-	3,220
Other	22,309	173	236	-	343	23,061
TOTAL	**54,810**	**173**	**3,320**	**3,020**	**3,626**	**64,949**

The primary source of funds is the provincial departmental budgets, accounting for 84% of total science expenditure.

TEXT TABLE V. Personnel Engaged in Intramural Activities, by Science Type, Activity and Category, 1986-87

Science type and activity	Scientific and professional		Technical		Other		Total	
	Number	%	Number	%	Number	%	Number	%
Natural Sciences:								
R&D	42	48	41	46	5	6	88	100
RSA	46	24	109	57	37	19	192	100
Sub-total	88	31	150	54	42	15	280	100
Social Sciences:								
R&D	5	63	3	37	-	-	8	100
RSA	171	75	17	8	39	17	227	100
Sub-total	176	75	20	8	39	17	235	100
TOTAL	**264**	**51**	**170**	**33**	**81**	**16**	**515**	**100**

Of the total Saskatchewan government employees, 515 person-years are devoted to science activities. The scientific and professional category accounts for 51%, technical personnel constitute 33% and other support staff the remaining 16%.

TEXT TABLE VI. Objectives of Total Science Expenditures

Objective	1986-87		1987-88(e)	
	($'000)	%	($'000)	%
Advancement of science	942	1	798	1
Communications	16	--	16	--
Energy and fuels:				
Fossil fuels	4,999	8	3,198	4
Other	257	--	478	1
Environmental issues:				
Air	74	--	65	--
Land	196	--	266	--
Water	1,875	3	1,674	2
Other	975	2	1,375	2
Health	9,562	15	11,288	15
Industrial and economic development:				
Agriculture	20,263	31	27,383	37
Fisheries	323	1	293	--
Forestry	305	--	283	--
Manufacturing	4,759	7	5,428	7
Minerals	1,225	2	1,655	2
Other	1,848	3	2,250	3
Social development:				
Culture, sport and recreation	2,878	4	2,834	4
Education	1,131	2	1,545	2
Human resources	3,436	5	2,626	4
Urban and regional studies	549	1	497	1
Other	4,165	6	4,308	6
Transportation	3,392	5	3,176	4
Wildlife	47	--	221	--
Other	1,732	3	1,557	2
TOTAL	**64,949**	**100**	**73,214**	**100**

Forty six percent of the money spent on natural science activities in 1986-87 was applied to the areas of Agriculture and Health. The major objective in the social sciences is Human resources ($3.4 million). Overall, $20.3 million was directed to Agriculture, $9.6 million to Health, $5.3 million to Energy and fuels, $8.5 million to Industrial and economic development (excluding Agriculture), $12.2 million to Social development and $3.1 million to Environmental issues.

ALL SCIENCES

Government of Saskatchewan

TABLE 1. Total Expenditures in All Sciences, by Activity, 1980-81 to 1987-88

Activity	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88(e)
	($'000)							
Research and development:								
Current expenditures:								
In-house	2,626	2,633	2,816	3,068	2,663	2,696	3,392	1,818
Contracts	362	354	766	3,795	4,265	6,819	6,225	3,437
Grants	7,838	7,919	8,637	9,853	11,086	8,130	21,601	28,057
Research fellowships	38	20	71	122	92	281	349	356
Sub-total	10,864	10,926	12,290	16,838	18,106	17,926	31,567	33,668
Capital expenditures	253	203	99	82	167	221	249	103
Related scientific activities:								
Current expenditures	15,107	16,810	20,357	23,500	27,320	32,217	32,993	39,412
Capital expenditures	318	178	240	157	805	133	140	31
TOTAL	**26,542**	**28,117**	**32,986**	**40,577**	**46,398**	**50,497**	**64,949**	**73,214**

Government of Saskatchewan

TABLE 2. Total Expenditures in All Sciences by Department or Agency, 1980-81 to 1987-88

Department or agency	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88(e)
	($'000)							
Departments:								
Advanced Education and Manpower	459	534	560	170	1,328	2,538	3,608	...
Agriculture	2,512	4,768	7,566	8,607	6,613	5,911	19,749	26,357
Consumer and Commercial Affairs	2	...	75	75	295	50	40	40
Co-operation and Co-operative Development	529	168	...	219	224	232	132	...
Culture and Recreation	624	860	304	358	464	507	586	...
Economic Development and Trade	...	...	...	556	647	756	...	...
Education	177	149	197	158	200	322	231	3,903
Energy and Mines	5,052	2,820	3,623	5,183	4,274	3,437	5,422	3,610
Environment	517	737	991	687	755	1,773	1,273	...
Environment and Public Safety	...	...	...	...	...	...	...	1,174
Executive Council	253	299	401	260	538	465	278	388
Finance	...	...	...	...	1,052	1,132	1,501	1,674
Health	6,446	6,608	6,686	9,044	9,308	9,526	9,010	10,725
Highways and Transportation	996	1,056	1,443	1,415	1,628	2,412	3,083	2,928
Human Resources, Labour and Employment	...	...	...	...	...	...	...	746
Indian and Native Affairs Secretariat	...	...	...	188	205	307	262	...
Industry and Commerce	625	522	758	...	...	...	...	...
Justice	...	...	...	1,295	1,495	2,226	383	758
Labour	458	655	694	675	212	278	509	...
Northern Saskatchewan	354	454	...	...	...	...	...	...
Parks and Renewable Resources	...	...	2,208	2,236	1,409	1,362	1,362	...
Parks, Recreation and Culture	...	...	...	...	...	...	...	2,395
Public Service Commission	...	...	...	...	202	215	112	130
Revenue and Financial Services	...	...	...	110	102	228	373	...
Rural Development	146	130	166	205	264	249	311	250
Saskatchewan Library	...	...	...	...	30	112	148	...
Saskatchewan Telephones	...	...	...	...	...	...	16	16
Science and Technology	...	...	...	652	2,477	3,992	4,487	4,526
Social Services	1,202	1,421	1,575	1,824	2,892	3,757	3,220	3,220

Government of Saskatchewan

TABLE 2. Total Expenditures in All Sciences by Department or Agency, 1980-81 to 1987-88 - Concluded

Department or agency	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88(e)
	($'000)							
Departments - Concluded:								
Supply and Services	...	...	...	860	1,954	769	610	...
Tourism and Renewable Resources	1,342	1,782	...	...	...	...	...	...
Tourism and Small Business	...	...	186	90	264	180	338	...
Tourism, Small Business and Co-operative Development	...	...	...	...	...	...	...	353
Urban Affairs	747	761	794	460	785	415	437	400
Women's Secretariat	...	...	...	...	38	30	24	...
Vote 35	2,728	3,065	3,519	3,876	4,106	4,081	4,081	6,443
Sub-total	25,169	26,789	31,746	39,203	43,761	47,262	61,586	70,036
Agencies:								
Cancer Foundation	...	...	241	282	407	447	434	450
Employment Development Agency	...	...	...	...	...	379	562	...
Government Insurance Corporation	57	62	...	...	...	...	...	...
Highway Traffic Board	178	97	127	90	84	84	...	...
Saskatchewan Archives Board	722	772	872	1,002	920	1,102	1,023	805
Saskatchewan Assessment Authority	...	...	...	...	53	55	13	...
Saskatchewan Crop Insurance Corporation	...	...	...	...	100	150	150	332
Saskatchewan Housing Corporation	356	371	...	...	318	234	181	181
Saskatchewan Property Management Corporation	...	...	...	...	...	...	...	610
Saskatchewan Water Corporation	...	...	...	...	755	784	1,000	800
Transportation Agency of Saskatchewan	60	26	...	...	...	...	...	...
Sub-total	1,373	1,328	1,240	1,374	2,637	3,235	3,363	3,178
TOTAL	**26,542**	**28,117**	**32,986**	**40,577**	**46,398**	**50,497**	**64,949**	**73,214**

Government of Saskatchewan

TABLE 3. Total Expenditures in All Sciences, by Performer, 1980-81 to 1987-88

Performer	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88(e)
	($'000)							
Intramural	16,194	16,238	19,398	23,036	24,351	24,835	26,194	27,529
Industry	4,180	2,294	3,358	5,501	7,666	9,900	11,384	12,060
Universities	1,820	4,214	5,158	6,408	7,032	6,612	10,031	12,744
Hospitals and health organizations	1,150	1,057	140	203	886	986	369	363
Saskatchewan Research Council (1)	2,830	3,786	3,869	4,227	4,460	6,971	7,429	8,556
Other	368	528	1,063	1,202	2,003	1,193	9,542	11,962
TOTAL	**26,542**	**28,117**	**32,986**	**40,577**	**46,398**	**50,497**	**64,949**	**73,214**

(1) Includes only Provincial Government payments to the SRC.

Government of Saskatchewan

TABLE 4. Current Expenditures on R&D in All Sciences, by Department or Agency, 1980-81 to 1987-88

Department or agency	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88(e)
	($'000)							
Departments:								
Advanced Education and Manpower	32	20	21	...	...	...	...	...
Agriculture	2,075	4,072	4,922	4,654	4,989	4,196	16,265	19,565
Consumer and Commercial Affairs	...	...	12	12	...	...	...	...
Co-operation and Co-operative Development	104	...	...	...	...	...	...	...
Culture and Recreation	135	160	65	18	36	40	145	...
Education	...	...	...	...	...	...	...	63
Energy and Mines	1,994	78	522	3,320	3,378	2,665	3,063	1,073
Environment	...	...	...	50	55	220	274	...
Environment and Public Safety	...	...	...	...	...	...	...	215
Executive Council	61	65	134	65	181	142	80	190
Health	2,493	2,220	1,691	2,543	2,846	3,098	3,175	2,671
Highways and Transportation	147	197	250	257	225	510	848	544
Industry and Commerce	382	99	344	...	...	...	...	...
Northern Saskatchewan	4	...	...	...	...	...	...	...
Parks and Renewable Resources	...	...	536	1,021	621	806	643	...
Parks, Recreation and Culture	...	...	...	...	...	...	...	825
Saskatchewan Library	...	...	...	...	...	19	74	...
Science and Technology	...	...	...	450	986	1,444	2,222	1,464
Social Services	33	...	92	133	141	144	113	113
Supply and Services	...	...	...	170	102	72	50	...
Tourism and Renewable Resources	535	848	...	...	...	...	...	...
Tourism and Small Business	...	...	...	10	...	...	...	...
Vote 35	2,728	3,065	3,519	3,876	4,106	4,081	4,081	6,443
Sub-total	10,723	10,824	12,108	16,579	17,666	17,437	31,033	33,166

Government of Saskatchewan

TABLE 4. Current Expenditures on R&D in All Sciences, by Department or Agency, 1980-81 to 1987-88 - Concluded

Department or agency	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88(e)
	($'000)							
Agencies:								
Cancer Foundation	...	...	182	259	355	424	411	400
Government Insurance Corporation	54	57	...	...	...	...	...	...
Highway Traffic Board	50	...	...	...	...	...	...	...
Saskatchewan Archives Board	32	...	...	...	...	...	...	...
Saskatchewan Crop Insurance Corporation	...	...	...	...	5	5	5	52
Saskatchewan Housing Corporation	...	44	...	...	...	...	...	...
Saskatchewan Property Management Corporation	...	...	...	...	...	...	...	50
Saskatchewan Water Corporation	...	...	...	...	80	60	118	...
Transportation Agency of Saskatchewan	5	1	...	...	...	...	...	...
Sub-total	141	102	182	259	420	489	534	502
TOTAL	**10,864**	**10,926**	**12,290**	**16,838**	**18,106**	**17,926**	**31,567**	**33,668**

Government of Saskatchewan

TABLE 5. Current Expenditures on R&D in All Sciences, by Performer, 1980-81 to 1987-88

Performer	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88(e)
	($'000)							
Intramural	2,659	2,633	2,828	3,563	3,098	3,051	3,649	1,953
Industry	2,494	454	846	3,379	3,604	2,630	5,044	4,412
Universities	1,696	3,705	4,683	5,570	5,796	4,332	7,128	8,912
Hospitals and health organizations	1,150	796	119	189	886	986	361	363
Saskatchewan Research Council (1)	2,728	3,218	3,555	3,908	4,315	6,649	7,321	8,503
Other	137	120	259	229	407	278	8,064	9,525
TOTAL	**10,864**	**10,926**	**12,290**	**16,838**	**18,106**	**17,926**	**31,567**	**33,668**

(1) Includes only Provincial Government payments to the SRC.

Government of Saskatchewan

TABLE 6. Personnel Engaged in All Scientific Activities, by Activity and Category, 1980-81 to 1987-88

Activity and category	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88(e)
	(person-years)							
Research and development:								
Scientific and professional	57	44	49	44	42	32	47	28
Technical	41	42	40	37	42	43	44	31
Other	15	11	8	4	8	5	5	2
Sub-total	113	97	97	85	92	80	96	61
Related scientific activities:								
Scientific and professional	153	159	194	194	217	255	217	216
Technical	126	110	172	169	140	150	126	119
Other	105	91	89	100	111	117	76	77
Sub-total	384	360	455	463	468	522	419	412
Total science activities:								
Scientific and professional	210	203	243	238	259	287	264	244
Technical	167	152	212	206	182	193	170	150
Other	120	102	97	104	119	122	81	79
TOTAL	**497**	**457**	**552**	**548**	**560**	**602**	**515**	**473**

Government of Saskatchewan

TABLE 7. Total Expenditures in All Sciences, by Sources of Funds, 1986-87

Department or agency	Departmental budget	Transfers from other departments	Transfers from federal government	From trust funds	From other sources	Total
	($'000)					
Departments:						
Advanced Education and Manpower	3,465	-	143	-	-	3,608
Agriculture	19,231	-	-	136	382	19,749
Consumer and Commercial Affairs	40	-	-	-	-	40
Co-operation and Co-operative Development	132	-	-	-	-	132
Culture and Recreation	586	-	-	-	-	586
Economic Development and Trade	-	-	-	-	-	-
Education	231	-	-	-	-	231
Energy and Mines	197	-	2,353	-	2,872	5,422
Environment	1,268	-	5	-	-	1,273
Executive Council	278	-	-	-	-	278
Finance	1,501	-	-	-	-	1,501
Health	8,514	-	467	-	29	9,010
Highways and Transportation	3,083	-	-	-	-	3,083
Indian and Native Affairs Secretariat	262	-	-	-	-	262
Justice	383	-	-	-	-	383
Labour	509	-	-	-	-	509
Parks and Renewable Resources	1,362	-	-	-	-	1,362
Public Service Commission	112	-	-	-	-	112
Revenue and Financial Services	373	-	-	-	-	373
Rural Development	311	-	-	-	-	311
Saskatchewan Library	144	-	4	-	-	148
Saskatchewan Telephones	16	-	-	-	-	16
Science and Technology	1,339	-	264	2,884	-	4,487
Social Services	3,220	-	-	-	-	3,220
Supply and Services	255	155	-	-	200	610
Tourism and Small Business	338	-	-	-	-	338
Urban Affairs	437	-	-	-	-	437
Women's Secretariat	24	-	-	-	-	24
Vote 35	4,081	-	-	-	-	4,081
Sub-total	31,692	155	3,236	3,020	3,483	61,586

TABLE 7. Total Expenditures in All Sciences, by Sources of Funds, 1986-87 - Concluded

Department or agency	Departmental budget	Transfers from other departments	Transfers from federal government	From trust funds	From other sources	Total
	($'000)					
Agencies:						
Cancer Foundation	359	-	-	-	75	434
Employment Development Agency	562	-	-	-	-	562
Highway Traffic Board	-	-	-	-	-	-
Saskatchewan Archives Board	853	18	84	-	68	1,023
Saskatchewan Assessment Authority	13	-	-	-	-	13
Saskatchewan Crop Insurance Corporation	150	-	-	-	-	150
Saskatchewan Housing Corporation	181	-	-	-	-	181
Saskatchewan Water Corporation	1,000	-	-	-	-	1,000
Sub-total	3,118	18	84	-	143	3,363
TOTAL	**54,810**	**173**	**3,320**	**3,020**	**3,626**	**64,949**

Government of Saskatchewan

TABLE 8. Total Expenditures in All Sciences, by Activity and Performer, 1986-87

Activity	Intramural	Industry	Universities	Hospitals and health organizations	Saskatchewan Research Council (1)	Other	Total
	($'000)						
Research and development:							
Current expenditures:							
In-house	3,392	...	...	...	...	...	3,392
Contracts	257	2,953	447	-	2,499	69	6,225
Grants	-	2,091	6,332	361	4,822	7,995	21,601
Research fellowships	-	-	349	-	-	-	349
Sub-total	3,649	5,044	7,128	361	7,321	8,064	31,567
Capital expenditures	249	...	...	...	...	...	249
Related scientific activities:							
Current expenditures	22,156	6,340	2,903	8	108	1,478	32,993
Capital expenditures	140	...	...	...	...	...	140
TOTAL	**26,194**	**11,384**	**10,031**	**369**	**7,429**	**9,542**	**64,949**

(1) Includes only Provincial Government payments to the SRC.

Government of Saskatchewan

TABLE 9. Total Expenditures in All Sciences, by Department or Agency and Performer, 1986-87

Department or agency	Intramural	Industry	Universities	Hospitals and health organizations	Saskatchewan Research Council (1)	Other	Total
	($'000)						
Departments:							
Advanced Education and Manpower	2,734	-	874	-	-	-	3,608
Agriculture	1,559	2,396	6,864	2	741	8,187	19,749
Consumer and Commercial Affairs	40	-	-	-	-	-	40
Co-operation and Co-operative Development	-	-	132	-	-	-	132
Culture and Recreation	496	2	19	-	-	69	586
Economic Development and Trade	-	-	-	-	-	-	-
Education	142	-	66	-	-	23	231
Energy and Mines	398	2,278	268	-	2,478	-	5,422
Environment	871	85	201	-	70	46	1,273
Executive Council	-	72	69	-	-	137	278
Finance	1,501	-	-	-	-	-	1,501
Health	7,152	99	849	362	-	548	9,010
Highways and Transportation	2,163	676	217	-	27	-	3,083
Indian and Native Affairs Secretariat	39	-	-	-	-	223	262
Justice	218	165	-	-	-	-	383
Labour	504	-	-	5	-	-	509
Parks and Renewable Resources	996	348	18	-	-	-	1,362
Public Service Commission	107	-	-	-	-	5	112
Revenue and Financial Services	223	150	-	-	-	-	373
Rural Development	123	188	-	-	-	-	311
Saskatchewan Library	148	-	-	-	-	-	148
Saskatchewan Telephones	-	10	-	-	-	6	16
Science and Technology	1,700	2,452	303	-	32	-	4,487
Social Services	1,034	1,925	103	-	-	158	3,220
Supply and Services	330	280	-	-	-	-	610
Tourism and Small Business	105	197	8	-	-	28	338
Urban Affairs	325	-	-	-	-	112	437
Women's Secretariat	24	-	-	-	-	-	24
Vote 35	-	-	-	-	4,081	-	4,081
Sub-total	22,932	11,323	9,991	369	7,429	9,542	61,586

Government of Saskatchewan

TABLE 9. Total Expenditures in All Sciences, by Department or Agency and Performer, 1986-87 - Concluded

Department or agency	Intramural	Industry	Universities	Hospitals and health organizations	Saskatchewan Research Council (1)	Other	Total
	($'000)						
Agencies:							
Cancer Foundation	434	-	-	-	-	-	434
Employment Development Agency	562	-	-	-	-	-	562
Highway Traffic Board	-	-	-	-	-	-	-
Saskatchewan Archives Board	1,023	-	-	-	-	-	1,023
Saskatchewan Assessment Authority	13	-	-	-	-	-	13
Saskatchewan Crop Insurance Corporation	150	-	-	-	-	-	150
Saskatchewan Housing Corporation	80	61	40	-	-	-	181
Saskatchewan Water Corporation	1,000	-	-	-	-	-	1,000
Sub-total	3,262	61	40	-	-	-	3,363
TOTAL	**26,194**	**11,384**	**10,031**	**369**	**7,429**	**9,542**	**64,949**

(1) Includes only Provincial Government payments to the SRC.

Government of Saskatchewan

TABLE 10. Total Expenditures in All Sciences, by Department or Agency and Activity, 1986-87

Department or agency	Research and development			Related scientific activities			Total
	Current	Capital	Total	Current	Capital	Total	
	($'000)						
Departments:							
Advanced Education and Manpower	-	-	-	3,608	-	3,608	3,608
Agriculture	16,265	-	16,265	3,484	-	3,484	19,749
Consumer and Commercial Affairs	-	-	-	40	-	40	40
Co-operation and Co-operative Development	-	-	-	132	-	132	132
Culture and Recreation	145	-	145	439	2	441	586
Economic Development and Trade	-	-	-	-	-	-	-
Education	-	-	-	231	-	231	231
Energy and Mines	3,063	-	3,063	2,359	-	2,359	5,422
Environment	274	-	274	999	-	999	1,273
Executive Council	80	-	80	198	-	198	278
Finance	-	-	-	1,501	-	1,501	1,501
Health	3,175	2	3,177	5,720	113	5,833	9,010
Highways and Transportation	848	224	1,072	2,011	-	2,011	3,083
Indian and Native Affairs Secretariat	-	-	-	262	-	262	262
Justice	-	-	-	383	-	383	383
Labour	-	-	-	509	-	509	509
Parks and Renewable Resources	643	-	643	719	-	719	1,362
Public Service Commission	-	-	-	112	-	112	112
Revenue and Financial Services	-	-	-	373	-	373	373
Rural Development	-	-	-	311	-	311	311
Saskatchewan Library	74	-	74	74	-	74	148
Saskatchewan Telephones	-	-	-	16	-	16	16
Science and Technology	2,222	-	2,222	2,265	-	2,265	4,487
Social Services	113	-	113	3,107	-	3,107	3,220
Supply and Services	50	-	50	535	25	560	610
Tourism and Small Business	-	-	-	338	-	338	338
Urban Affairs	-	-	-	437	-	437	437
Women's Secretariat	-	-	-	24	-	24	24
Vote 35	4,081	-	4,081	-	-	-	4,081
Sub-total	31,033	226	31,259	30,187	140	30,327	61,586

Government of Saskatchewan

TABLE 10. Total Expenditures in All Sciences, by Department or Agency and Activity, 1986-87 - Concluded

Department or agency	Research and development			Related scientific activities			Total
	Current	Capital	Total	Current	Capital	Total	
	($'000)						
Agencies:							
Cancer Foundation	411	23	434	-	-	-	434
Employment Development Agency	-	-	-	562	-	562	562
Highway Traffic Board	-	-	-	-	-	-	-
Saskatchewan Archives Board	-	-	-	1,023	-	1,023	1,023
Saskatchewan Assessment Authority	-	-	-	13	-	13	13
Saskatchewan Crop Insurance Corporation	5	-	5	145	-	145	150
Saskatchewan Housing Corporation	-	-	-	181	-	181	181
Saskatchewan Water Corporation	118	-	118	882	-	882	1,000
Sub-total	534	23	557	2,806	-	2,806	3,363
TOTAL	**31,567**	**249**	**31,816**	**32,993**	**140**	**33,133**	**64,949**

Government of Saskatchewan

TABLE 11. Total Expenditures on R&D in All Sciences, by Department or Agency and Performer, 1986-87

Department or agency	Intramural	Industry	Universities	Hospitals and health organizations	Saskatchewan Research Council (1)	Other	Total
	($'000)						
Departments:							
Agriculture	232	2,091	5,688	2	741	7,511	16,265
Culture and Recreation	145	-	-	-	-	-	145
Energy and Mines	150	316	170	-	2,427	-	3,063
Environment	24	-	200	-	45	5	274
Executive Council	-	72	8	-	-	-	80
Health	1,542	-	738	359	-	538	3,177
Highways and Transportation	486	347	212	-	27	-	1,072
Parks and Renewable Resources	556	78	9	-	-	-	643
Saskatchewan Library	74	-	-	-	-	-	74
Science and Technology	107	2,115	-	-	-	-	2,222
Social Services	-	-	103	-	-	10	113
Supply and Services	25	25	-	-	-	-	50
Vote 35	-	-	-	-	4,081	-	4,081
Sub-total	3,341	5,044	7,128	361	7,321	8,064	31,259
Agencies:							
Cancer Foundation	434	-	-	-	-	-	434
Saskatchewan Crop Insurance Corporation	5	-	-	-	-	-	5
Saskatchewan Water Corporation	118	-	-	-	-	-	118
Sub-total	557	-	-	-	-	-	557
TOTAL	**3,898**	**5,044**	**7,128**	**361**	**7,321**	**8,064**	**31,816**

(1) Includes only Provincial Government payments to the SRC.

Government of Saskatchewan

TABLE 12. Intramural Expenditures in All Sciences, by Department or Agency and Type of Expenditure, 1986-87

Department or agency	Current expenditures		Capital expenditures	Total
	Personnel costs	Other costs		
	($'000)			
Departments:				
Advanced Education and Manpower	2,379	355	-	2,734
Agriculture	928	631	-	1,559
Consumer and Commercial Affairs	37	3	-	40
Co-operation and Co-operative Development	-	-	-	-
Culture and Recreation	402	92	2	496
Economic Development and Trade	-	-	-	-
Education	118	24	-	142
Energy and Mines	143	255	-	398
Environment	689	182	-	871
Executive Council	-	-	-	-
Finance	1,201	300	-	1,501
Health	4,634	2,403	115	7,152
Highways and Transportation	800	1,139	224	2,163
Indian and Native Affairs Secretariat	39	-	-	39
Justice	175	43	-	218
Labour	424	80	-	504
Parks and Renewable Resources	826	170	-	996
Public Service Commission	107	-	-	107
Revenue and Financial Services	223	-	-	223
Rural Development	112	11	-	123
Saskatchewan Library	108	40	-	148
Saskatchewan Telephones	-	-	-	-
Science and Technology	1,009	691	-	1,700
Social Services	540	494	-	1,034
Supply and Services	280	25	25	330
Tourism and Small Business	83	22	-	105
Urban Affairs	300	25	-	325
Women's Secretariat	24	-	-	24
Vote 35	-	-	-	-
Sub-total	15,581	6,985	366	22,932

Government of Saskatchewan

TABLE 12. Intramural Expenditures in All Sciences, by Department or Agency and Type of Expenditure, 1986-87 - Concluded

Department or agency	Current expenditures		Capital expenditures	Total
	Personnel costs	Other costs		
	($'000)			
Agencies:				
Cancer Foundation	343	68	23	434
Employment Development Agency	350	212	-	562
Highway Traffic Board	-	-	-	-
Saskatchewan Archives Board	767	256	-	1,023
Saskatchewan Assessment Authority	7	6	-	13
Saskatchewan Crop Insurance Corporation	100	50	-	150
Saskatchewan Housing Corporation	80	-	-	80
Saskatchewan Water Corporation	960	40	-	1,000
Sub-total	2,607	632	23	3,262
TOTAL	**18,188**	**7,617**	**389**	**26,194**

TABLE 13. Personnel Engaged in All Scientific Activities, by Department or Agency, 1986-87

Department or agency	Research and development				Related scientific activities			
	Scientific and professional	Technical	Other	Total	Scientific and professional	Technical	Other	Total
	(person-years)							
Departments:								
Advanced Education and Manpower	-	-	-	-	51	5	-	56
Agriculture	10	-	-	10	13	-	6	19
Consumer and Commercial Affairs	-	-	-	-	1	-	-	1
Co-operation and Co-operative Development	-	-	-	-	-	-	-	-
Culture and Recreation	3	-	-	3	6	1	1	8
Economic Development and Trade	-	-	-	-	-	-	-	-
Education	-	-	-	-	2	-	1	3
Energy and Mines	1	-	1	2	1	-	1	2
Environment	-	1	-	1	3	15	-	18
Executive Council	-	-	-	-	-	-	-	-
Finance	-	-	-	-	22	-	5	27
Health	14	18	3	35	27	58	27	112
Highways and Transportation	3	3	1	7	1	8	6	15
Indian and Native Affairs Secretariat	-	-	-	-	1	-	-	1
Justice	-	-	-	-	2	3	-	5
Labour	-	-	-	-	9	-	3	12
Parks and Renewable Resources	6	5	-	11	6	4	-	10
Public Service Commission	-	-	-	-	3	-	-	3
Revenue and Financial Services	-	-	-	-	6	-	-	6
Rural Development	-	-	-	-	1	1	1	3
Saskatchewan Library	2	1	-	3	1	2	-	3
Saskatchewan Telephones	-	-	-	-	-	-	-	-
Science and Technology	2	-	-	2	13	1	6	20
Social Services	-	-	-	-	11	3	-	14
Supply and Services	1	-	-	1	3	5	-	8
Tourism and Small Business	-	-	-	-	2	-	1	3
Urban Affairs	-	-	-	-	7	-	-	7
Women's Secretariat	-	-	-	-	1	-	-	1
Vote 35	-	-	-	-	-	-	-	-
Sub-total	42	28	5	75	193	106	58	357

Government of Saskatchewan

TABLE 13. Personnel Engaged in All Scientific Activities, by Department or Agency, 1986-87 - Concluded

Department or agency	Research and development				Related scientific activities			
	Scientific and professional	Technical	Other	Total	Scientific and professional	Technical	Other	Total
	(person-years)							
Agencies:								
Cancer Foundation	-	16	-	16	-	-	-	-
Employment Development Agency	-	-	-	-	6	-	2	8
Highway Traffic Board	-	-	-	-	-	-	-	-
Saskatchewan Archives Board	-	-	-	-	15	-	16	31
Saskatchewan Assessment Authority	-	-	-	-	-	-	-	-
Saskatchewan Crop Insurance Corporation	-	-	-	-	1	1	-	2
Saskatchewan Housing Corporation	-	-	-	-	2	-	-	2
Saskatchewan Water Corporation	5	-	-	5	-	19	-	19
Sub-total	5	16	-	21	24	20	18	62
TOTAL	**47**	**44**	**5**	**96**	**217**	**126**	**76**	**419**

Government of Saskatchewan

TABLE 14. Objectives of Expenditures in All Sciences, by Department or Agency, 1986-87

Department or agency	Advancement of science	Communications	Energy and fuels		Environmental issues			
			Fossil fuels	Other	Air	Land	Water	Other
	($'000)							
Departments:								
Advanced Education and Manpower	-	-	-	-	-	-	-	-
Agriculture	-	-	-	-	-	-	-	-
Consumer and Commercial Affairs	-	-	-	-	-	-	-	-
Co-operation and Co-operative Development	-	-	-	-	-	-	-	-
Culture and Recreation	35	-	-	-	-	-	-	-
Economic Development and Trade	-	-	-	-	-	-	-	-
Education	-	-	-	-	-	-	-	-
Energy and Mines	-	-	4,984	-	-	-	-	-
Environment	-	-	-	-	74	186	813	200
Executive Council	198	-	15	-	-	-	-	-
Finance	-	-	-	-	-	-	-	-
Health	-	-	-	-	-	-	-	-
Highways and Transportation	-	-	-	-	-	-	-	-
Indian and Native Affairs Secretariat	-	-	-	-	-	-	-	-
Justice	-	-	-	-	-	-	-	-
Labour	-	-	-	-	-	-	-	-
Parks and Renewable Resources	-	-	-	-	-	-	62	-
Public Service Commission	-	-	-	-	-	-	-	-
Revenue and Financial Services	-	-	-	-	-	-	-	-
Rural Development	-	-	-	-	-	-	-	-
Saskatchewan Library	148	-	-	-	-	-	-	-
Saskatchewan Telephones	-	16	-	-	-	-	-	-
Science and Technology	300	-	-	-	-	-	-	-
Social Services	-	-	-	-	-	-	-	-
Supply and Services	-	-	-	-	-	10	-	-
Tourism and Small Business	-	-	-	-	-	-	-	-
Urban Affairs	-	-	-	-	-	-	-	-
Women's Secretariat	-	-	-	-	-	-	-	-
Vote 35	261	-	-	257	-	-	-	775
Sub-total	942	16	4,999	257	74	196	875	975

Government of Saskatchewan

TABLE 14. Objectives of Expenditures in All Sciences, by Department or Agency, 1986-87 - Continued

Department or agency	Advancement of science	Communications	Energy and fuels		Environmental issues			
			Fossil fuels	Other	Air	Land	Water	Other
	($'000)							
Agencies:								
Cancer Foundation	-	-	-	-	-	-	-	-
Employment Development Agency	-	-	-	-	-	-	-	-
Highway Traffic Board	-	-	-	-	-	-	-	-
Saskatchewan Archives Board	-	-	-	-	-	-	-	-
Saskatchewan Assessment Authority	-	-	-	-	-	-	-	-
Saskatchewan Crop Insurance Corporation	-	-	-	-	-	-	-	-
Saskatchewan Housing Corporation	-	-	-	-	-	-	-	-
Saskatchewan Water Corporation	-	-	-	-	-	-	1,000	-
Sub-total	-	-	-	-	-	-	1,000	-
TOTAL	**942**	**16**	**4,999**	**257**	**74**	**196**	**1,875**	**975**

TABLE 14. Objectives of Expenditures in All Sciences, by Department or Agency, 1986-87 - Continued

Department or agency	Health	Industrial and economic development					
		Agriculture	Fisheries	Forestry	Manufacturing	Minerals	Other
	($'000)						
Departments:							
Advanced Education and Manpower	-	-	-	-	-	-	-
Agriculture	-	19,514	-	-	-	-	-
Consumer and Commercial Affairs	-	-	-	-	-	-	-
Co-operation and Co-operative Development	-	-	-	-	-	-	132
Culture and Recreation	-	-	-	-	-	-	-
Economic Development and Trade	-	-	-	-	-	-	-
Education	-	-	-	-	-	-	-
Energy and Mines	-	-	-	-	-	438	-
Environment	-	-	-	-	-	-	-
Executive Council	-	45	3	2	-	-	-
Finance	-	-	-	-	-	-	-
Health	9,010	-	-	-	-	-	-
Highways and Transportation	-	-	-	-	-	-	-
Indian and Native Affairs Secretariat	-	-	-	-	-	-	-
Justice	-	-	-	-	-	-	-
Labour	5	-	-	-	-	-	-
Parks and Renewable Resources	-	-	320	303	-	-	-
Public Service Commission	-	-	-	-	-	-	-
Revenue and Financial Services	-	-	-	-	-	-	-
Rural Development	-	-	-	-	-	-	-
Saskatchewan Library	-	-	-	-	-	-	-
Saskatchewan Telephones	-	-	-	-	-	-	-
Science and Technology	-	-	-	-	4,187	-	-
Social Services	113	-	-	-	-	-	-
Supply and Services	-	10	-	-	-	-	480
Tourism and Small Business	-	-	-	-	-	-	338
Urban Affairs	-	-	-	-	-	-	-
Women's Secretariat	-	-	-	-	-	-	-
Vote 32	-	531	-	-	572	787	898
Sub-total	9,128	20,100	323	305	4,759	1,225	1,848

Government of Saskatchewan

TABLE 14. Objectives of Expenditures in All Sciences, by Department or Agency, 1986-87 - Continued

Department or agency	Health	Industrial and economic development					
		Agriculture	Fisheries	Forestry	Manufacturing	Minerals	Other
	($'000)						
Agencies:							
Cancer Foundation	434	-	-	-	-	-	-
Employment Development Agency	-	-	-	-	-	-	-
Highway Traffic Board	-	-	-	-	-	-	-
Saskatchewan Archives Board	-	-	-	-	-	-	-
Saskatchewan Assessment Authority	-	13	-	-	-	-	-
Saskatchewan Crop Insurance Corporation	-	150	-	-	-	-	-
Saskatchewan Housing Corporation	-	-	-	-	-	-	-
Saskatchewan Water Corporation	-	-	-	-	-	-	-
Sub-total	434	163	-	-	-	-	-
TOTAL	**9,562**	**20,263**	**323**	**305**	**4,759**	**1,225**	**1,848**

TABLE 14. Objectives of Expenditures in All Sciences, by Department or Agency, 1986-87 - Continued

Department or agency	Social development					Transportation	Wildlife	Other	Total
	Culture, sport and recreation	Education	Human resources	Urban and regional studies	Other				
	($'000)								
Departments:									
Advanced Education and Manpower	874	900	1,834	-	-	-	-	-	3,608
Agriculture	-	-	235	-	-	-	-	-	19,749
Consumer and Commercial Affairs	-	-	-	-	20	-	-	20	40
Co-operation and Co-operative Dvlpt	-	-	-	-	-	-	-	-	132
Culture and Recreation	351	-	-	-	200	-	-	-	586
Economic Development and Trade	-	-	-	-	-	-	-	-	-
Education	-	231	-	-	-	-	-	-	231
Energy and Mines	-	-	-	-	-	-	-	-	5,422
Environment	-	-	-	-	-	-	-	-	1,273
Executive Council	-	-	-	15	-	-	-	-	278
Finance	-	-	-	-	-	-	-	1,501	1,501
Health	-	-	-	-	-	-	-	-	9,010
Highways and Transportation	-	-	-	-	-	3,083	-	-	3,083
Indian and Native Affairs Secretariat	-	-	-	-	262	-	-	-	262
Justice	-	-	-	-	383	-	-	-	383
Labour	-	-	483	-	21	-	-	-	509
Parks and Renewable Resources	630	-	-	-	-	-	47	-	1,362
Public Service Commission	-	-	112	-	-	-	-	-	112
Revenue and Financial Services	-	-	186	-	31	-	-	156	373
Rural Development	-	-	-	22	-	289	-	-	311
Saskatchewan Library	-	-	-	-	-	-	-	-	148
Saskatchewan Telephones	-	-	-	-	-	-	-	-	16
Science and Technology	-	-	-	-	-	-	-	-	4,487
Social Services	-	-	-	-	3,107	-	-	-	3,220
Supply and Services	-	-	-	35	-	20	-	55	610
Tourism and Small Business	-	-	-	-	-	-	-	-	338
Urban Affairs	-	-	-	437	-	-	-	-	437
Women's Secretariat	-	-	24	-	-	-	-	-	24
Vote 35	-	-	-	-	-	-	-	-	4,081
Sub-total	1,855	1,131	2,874	509	4,024	3,392	47	1,732	61,586

Government of Saskatchewan

TABLE 14. Objectives of Expenditures in All Sciences, by Department or Agency, 1986-87 - Concluded

Department or agency	Social development					Transportation	Wildlife	Other	Total
	Culture, sport and recreation	Education	Human resources	Urban and regional studies	Other				
	($'000)								
Agencies:									
Cancer Foundation	-	-	-	-	-	-	-	-	434
Employment Development Agency	-	-	562	-	-	-	-	-	562
Highway Traffic Board	-	-	-	-	-	-	-	-	-
Saskatchewan Archives Board	1,023	-	-	-	-	-	-	-	1,023
Saskatchewan Assessment Authority	-	-	-	-	-	-	-	-	13
Saskatchewan Crop Insurance Corporation	-	-	-	-	-	-	-	-	150
Saskatchewan Housing Corporation	-	-	-	40	141	-	-	-	181
Saskatchewan Water Corporation	-	-	-	-	-	-	-	-	1,000
Sub-total	1,023	-	562	40	141	-	-	-	3,363
TOTAL	**2,878**	**1,131**	**3,436**	**549**	**4,165**	**3,392**	**47**	**1,732**	**64,949**

TABLE 15. Objectives of Expenditures in All Sciences, by Activity, 1986-87

Objective	Intramural		Extramural		Total
	Research and development	Related scientific activities	Research and development	Related scientific activities	
	($'000)				
Advancement of science	109	74	261	498	942
Communications	-	-	-	16	16
Energy and fuels:					
Fossil fuels	150	166	2,928	1,755	4,999
Other	-	-	257	-	257
Environmental issues:					
Air	24	-	50	-	74
Land	-	107	-	89	196
Water	118	1,663	-	94	1,875
Other	-	-	975	-	975
Health	1,976	5,610	1,748	228	9,562
Industrial and economic development:					
Agriculture	237	1,495	16,609	1,922	20,263
Fisheries	291	-	32	-	323
Forestry	235	10	60	-	305
Manufacturing	107	1,593	2,687	372	4,759
Minerals	-	82	787	356	1,225
Other	20	315	923	590	1,848
Social development:					
Culture, sport and recreation	9	1,773	-	1,096	2,878
Education	-	1,042	-	89	1,131
Human resources	-	3,046	-	390	3,436
Urban and regional studies	5	357	15	172	549
Other	110	1,443	-	2,612	4,165
Transportation	486	1,788	586	532	3,392
Wildlife	21	-	-	26	47
Other	-	1,732	-	-	1,732
TOTAL	**3,898**	**22,296**	**27,918**	**10,837**	**64,949**

Government of Saskatchewan

TABLE 16. Total Expenditures in All Sciences, by Activity and Performer, 1987-88(e)

Activity	Intramural	Industry	Universities	Hospitals and health organizations	Saskatchewan Research Council (1)	Other	Total
	($'000)						
Research and development:							
Current expenditures:							
In-house	1,818	...	...	...	...	...	1,818
Contracts	135	2,010	640	-	568	84	3,437
Grants	-	2,402	7,916	363	7,935	9,441	28,057
Research fellowships	-	-	356	-	-	-	356
Sub-total	1,953	4,412	8,912	363	8,503	9,525	33,668
Capital expenditures	103	...	...	...	...	...	103
Related scientific activities:							
Current expenditures	25,442	7,648	3,832	-	53	2,437	39,412
Capital expenditures	31	...	...	...	...	...	31
**TOTAL ..... **	**27,529**	**12,060**	**12,744**	**363**	**8,556**	**11,962**	**73,214**

(1) Includes only Provincial Government payments to the SRC.

Government of Saskatchewan

TABLE 17. Total Expenditures in All Sciences, by Department or Agency and Performer, 1987-88(e)

Department or agency	Intramural	Industry	Universities	Hospitals and health organizations	Saskatchewan Research Council (1)	Other	Total
	($'000)						
Departments:							
Agriculture	2,383	2,778	8,848	4	962	11,382	26,357
Consumer and Commercial Affairs	33	7	-	-	-	-	40
Economic Development and Trade	-	-	-	-	-	-	-
Education	2,970	-	905	-	-	28	3,903
Energy and Mines	512	2,350	215	-	533	-	3,610
Environment and Public Safety	827	85	151	-	65	46	1,174
Executive Council	-	72	179	-	-	137	388
Finance	1,568	106	-	-	-	-	1,674
Health	8,007	63	1,758	359	538	-	10,725
Highways and Transportation	1,956	670	302	-	-	-	2,928
Human Resources, Labour and Employment	724	4	18	-	-	-	746
Justice	453	305	-	-	-	-	758
Parks, Recreation and Culture	1,773	498	49	-	-	75	2,395
Public Service Commission	120	10	-	-	-	-	130
Rural Development	95	155	-	-	-	-	250
Saskatchewan Telephones	-	10	-	-	-	6	16
Science and Technology	1,952	2,574	-	-	-	-	4,526
Social Services	1,034	1,925	103	-	-	158	3,220
Tourism, Small Business and Co-operative Development	74	107	142	-	-	30	353
Urban Affairs	300	-	-	-	-	100	400
Vote 35	-	-	-	-	6,443	-	6,443
Sub-total	24,781	11,719	12,670	363	8,541	11,962	70,036

Government of Saskatchewan

TABLE 17. Total Expenditures in All Sciences, by Department or Agency and Performer, 1987-88(e) - Concluded

Department or agency	Intramural	Industry	Universities	Hospitals and health organizations	Saskatchewan Research Council (1)	Other	Total
	($'000)						
Agencies:							
Cancer Foundation	450	-	-	-	-	-	450
Highway Traffic Board	-	-	-	-	-	-	-
Saskatchewan Archives Board	805	-	-	-	-	-	805
Saskatchewan Assessment Management Agency	-	-	-	-	-	-	-
Saskatchewan Crop Insurance Corporation	283	-	34	-	15	-	332
Saskatchewan Housing Corporation	80	61	40	-	-	-	181
Saskatchewan Property Management Corporation	330	280	-	-	-	-	610
Saskatchewan Water Corporation	800	-	-	-	-	-	800
Sub-total	2,748	341	74	-	15	-	3,178
TOTAL	**27,529**	**12,060**	**12,744**	**363**	**8,556**	**11,962**	**73,214**

(1) Includes only Provincial Government payments to the SRC.

Government of Saskatchewan

TABLE 18. Total Expenditures in All Sciences, by Department or Agency and Activity, 1987-88(e)

Department or agency	Research and development			Related scientific activities			Total
	Current	Capital	Total	Current	Capital	Total	
	($'000)						
Departments:							
Agriculture	19,565	-	19,565	6,792	-	6,792	26,357
Consumer and Commercial Affairs	-	-	-	40	-	40	40
Economic Development and Trade	-	-	-	-	-	-	-
Education	63	-	63	3,840	-	3,840	3,903
Energy and Mines	1,073	-	1,073	2,537	-	2,537	3,610
Environment and Public Safety	215	-	215	959	-	959	1,174
Executive Council	190	-	190	198	-	198	388
Finance	-	-	-	1,674	-	1,674	1,674
Health	2,671	3	2,674	8,051	-	8,051	10,725
Highways and Transportation	544	50	594	2,334	-	2,334	2,928
Human Resources, Labour and Employment	-	-	-	746	-	746	746
Justice	-	-	-	758	-	758	758
Parks, Recreation and Culture	825	-	825	1,564	6	1,570	2,395
Public Service Commission	-	-	-	130	-	130	130
Rural Development	-	-	-	250	-	250	250
Saskatchewan Telephones	-	-	-	16	-	16	16
Science and Technology	1,464	-	1,464	3,062	-	3,062	4,526
Social Services	113	-	113	3,107	-	3,107	3,220
Tourism, Small Business and Co-operative Development	-	-	-	353	-	353	353
Urban Affairs	-	-	-	400	-	400	400
Vote 35	6,443	-	6,443	-	-	-	6,443
Sub-total	33,166	53	33,219	36,811	6	36,817	70,036

Government of Saskatchewan

TABLE 18. Total Expenditures in All Sciences, by Department or Agency and Activity, 1987-88(e) - Concluded

Department or agency	Research and development			Related scientific activities			Total
	Current	Capital	Total	Current	Capital	Total	
	($'000)						
Agencies:							
Cancer Foundation	400	50	450	-	-	-	450
Highway Traffic Board	-	-	-	-	-	-	-
Saskatchewan Archives Board	-	-	-	805	-	805	805
Saskatchewan Assessment Management Agency	-	-	-	-	-	-	-
Saskatchewan Crop Insurance Corporation	52	-	52	280	-	280	332
Saskatchewan Housing Corporation	-	-	-	181	-	181	181
Saskatchewan Property Management Corporation	50	-	50	535	25	560	610
Saskatchewan Water Corporation	-	-	-	800	-	800	800
Sub-total	502	50	552	2,601	25	2,626	3,178
TOTAL	**33,668**	**103**	**33,771**	**39,412**	**31**	**39,443**	**73,214**

Government of Saskatchewan

TABLE 19. Total Expenditures on R&D in All Sciences, by Department or Agency and Performer, 1987-88(e)

Department or agency	Intramural	Industry	Universities	Hospitals and health organizations	Saskatchewan Research Council (1)	Other	Total
	($'000)						
Departments:							
Agriculture	246	2,402	6,449	4	954	9,510	19,565
Education	63	-	-	-	-	-	63
Energy and Mines	125	285	150	-	513	-	1,073
Environment and Public Safety	20	-	150	-	40	5	215
Executive Council	-	72	118	-	-	-	190
Health	130	-	1,647	359	538	-	2,674
Highways and Transportation	257	85	252	-	-	-	594
Parks, Recreation and Culture	737	79	9	-	-	-	825
Science and Technology	-	1,464	-	-	-	-	1,464
Social Services	-	-	103	-	-	10	113
Vote 35	-	-	-	-	6,443	-	6,443
Sub-total	1,578	4,387	8,878	363	8,488	9,525	33,219
Agencies:							
Cancer Foundation	450	-	-	-	-	-	450
Saskatchewan Crop Insurance Corporation	3	-	34	-	15	-	52
Saskatchewan Property Management Corporation	25	25	-	-	-	-	50
Saskatchewan Water Corporation	-	-	-	-	-	-	-
Sub-total	478	25	34	-	15	-	552
TOTAL	**2,056**	**4,412**	**8,912**	**363**	**8,503**	**9,525**	**33,771**

(1) Includes only Provincial Government payments to the SRC.

Government of Saskatchewan

TABLE 20. Personnel Engaged in All Scientific Activities, by Department or Agency, 1987-88(e)

Department or agency	Research and development				Related scientific activities			
	Scientific and professional	Technical	Other	Total	Scientific and professional	Technical	Other	Total
	(person-years)							
Departments:								
Agriculture	10	-	-	10	14	-	6	20
Consumer and Commercial Affairs	-	-	-	-	1	-	-	1
Economic Development and Trade	-	-	-	-	-	-	-	-
Education	2	1	-	3	54	7	1	62
Energy and Mines	1	-	1	2	1	-	1	2
Environment and Public Safety	-	1	-	1	3	13	-	16
Executive Council	-	-	-	-	-	-	-	-
Finance	-	-	-	-	25	-	5	30
Health	1	2	-	3	29	58	27	114
Highways and Transportation	2	3	1	6	1	8	5	14
Human Resources, Labour and Employment	-	-	-	-	14	-	4	18
Justice	-	-	-	-	6	1	-	7
Parks, Recreation and Culture	11	8	-	19	15	6	-	21
Public Service Commission	-	-	-	-	3	-	-	3
Rural Development	-	-	-	-	2	1	-	3
Saskatchewan Telephones	-	-	-	-	-	-	-	-
Science and Technology	-	-	-	-	12	-	12	24
Social Services	-	-	-	-	11	3	-	14
Tourism, Small Business and Co-operative Development	-	-	-	-	1	-	1	2
Urban Affairs	-	-	-	-	5	-	-	5
Vote 35	-	-	-	-	-	-	-	-
Sub-total	27	15	2	44	197	97	62	356

Government of Saskatchewan

TABLE 20. Personnel Engaged in All Scientific Activities, by Department or Agency, 1987-88(e) - Concluded

Department or agency	Research and development				Related scientific activities			
	Scientific and professional	Technical	Other	Total	Scientific and professional	Technical	Other	Total
	(person-years)							
Agencies:								
Cancer Foundation	-	16	-	16	-	-	-	-
Highway Traffic Board	-	-	-	-	-	-	-	-
Saskatchewan Archives Board	-	-	-	-	12	-	13	25
Saskatchewan Assessment Management Agency	-	-	-	-	-	-	-	-
Saskatchewan Crop Insurance Corporation	-	-	-	-	2	1	2	5
Saskatchewan Housing Corporation	-	-	-	-	2	-	-	2
Saskatchewan Property Management Corporation	1	-	-	1	3	5	-	8
Saskatchewan Water Corporation	-	-	-	-	-	16	-	16
Sub-total	1	16	-	17	19	22	15	56
TOTAL	**28**	**31**	**2**	**61**	**216**	**119**	**77**	**412**

Government of Saskatchewan

TABLE 21. Objectives of Expenditures in All Sciences, by Department or Agency, 1987-88(e)

Department or agency	Advancement of science	Communications	Energy and fuels		Environmental issues			
			Fossil fuels	Other	Air	Land	Water	Other
	($'000)							
Departments:								
Agriculture	-	-	-	-	-	-	-	-
Consumer and Commercial Affairs	-	-	-	-	-	-	-	-
Economic Development and Trade	-	-	-	-	-	-	-	-
Education	126	-	-	-	-	-	-	-
Energy and Mines	-	-	3,198	-	-	-	-	-
Environment and Public Safety	-	-	-	-	65	186	773	150
Executive Council	198	-	-	72	-	-	-	-
Finance	-	-	-	-	-	-	-	-
Health	-	-	-	-	-	-	-	-
Highways and Transportation	-	-	-	-	-	-	-	-
Human Resources, Labour and Employment	-	-	-	-	-	-	-	-
Justice	-	-	-	-	-	-	-	-
Parks, Recreation and Culture	62	-	-	-	-	70	101	-
Public Service Commission	-	-	-	-	-	-	-	-
Rural Development	-	-	-	-	-	-	-	-
Saskatchewan Telephones	-	16	-	-	-	-	-	-
Science and Technology	-	-	-	-	-	-	-	-
Social Services	-	-	-	-	-	-	-	-
Tourism, Small Business and Co-operative Development	-	-	-	-	-	-	-	-
Urban Affairs	-	-	-	-	-	-	-	-
Vote 35	412	-	-	406	-	-	-	1,225
Sub-total	798	16	3,198	478	65	256	874	1,375

TABLE 21. Objectives of Expenditures in All Sciences, by Department or Agency, 1987-88(e) - Continued

Department or agency	Advancement of science	Communications	Energy and fuels		Environmental issues			
			Fossil fuels	Other	Air	Land	Water	Other
	($'000)							
Agencies:								
Cancer Foundation	-	-	-	-	-	-	-	-
Highway Traffic Board	-	-	-	-	-	-	-	-
Saskatchewan Archives Board	-	-	-	-	-	-	-	-
Saskatchewan Assessment Management Agency	-	-	-	-	-	-	-	-
Saskatchewan Crop Insurance Corporation	-	-	-	-	-	-	-	-
Saskatchewan Housing Corporation	-	-	-	-	-	-	-	-
Saskatchewan Property Management Corporation	-	-	-	-	-	10	-	-
Saskatchewan Water Corporation	-	-	-	-	-	-	800	-
Sub-total	-	-	-	-	-	10	800	-
TOTAL	**798**	**16**	**3,198**	**478**	**65**	**266**	**1,674**	**1,375**

Government of Saskatchewan

TABLE 21. Objectives of Expenditures in All Sciences, by Department or Agency, 1987-88(e) - Continued

Department or agency	Health	Industrial and economic development					
		Agriculture	Fisheries	Forestry	Manufacturing	Minerals	Other
	($'000)						
Departments:							
Agriculture	-	26,085	-	-	-	-	-
Consumer and Commercial Affairs	-	-	-	-	-	-	-
Economic Development and Trade	-	-	-	-	-	-	-
Education	-	-	-	-	-	-	-
Energy and Mines	-	-	-	-	-	412	-
Environment and Public Safety	-	-	-	-	-	-	-
Executive Council	-	118	-	-	-	-	-
Finance	-	-	-	-	-	-	-
Health	10,725	-	-	-	-	-	-
Highways and Transportation	-	-	-	-	-	-	-
Human Resources, Labour and Employment	-	-	-	-	-	-	-
Justice	-	-	-	-	-	-	-
Parks, Recreation and Culture	-	-	293	283	-	-	-
Public Service Commission	-	-	-	-	-	-	-
Rural Development	-	-	-	-	-	-	-
Saskatchewan Telephones	-	-	-	-	-	-	-
Science and Technology	-	-	-	-	4,526	-	-
Social Services	113	-	-	-	-	-	-
Tourism, Small Business and Co-operative Development	-	-	-	-	-	-	353
Urban Affairs	-	-	-	-	-	-	-
Vote 35	-	838	-	-	902	1,243	1,417
Sub-total	10,838	27,041	293	283	5,428	1,655	1,770

Government of Saskatchewan

TABLE 21. Objectives of Expenditures in All Sciences, by Department or Agency, 1987-88(e) - Continued

Department or agency	Health	Industrial and economic development					
		Agriculture	Fisheries	Forestry	Manufacturing	Minerals	Other
	($'000)						
Agencies:							
Cancer Foundation	450	-	-	-	-	-	-
Highway Traffic Board	-	-	-	-	-	-	-
Saskatchewan Archives Board	-	-	-	-	-	-	-
Saskatchewan Assessment Management Agency	-	-	-	-	-	-	-
Saskatchewan Crop Insurance Corporation	-	332	-	-	-	-	-
Saskatchewan Housing Corporation	-	-	-	-	-	-	-
Saskatchewan Property Management Corporation	-	10	-	-	-	-	480
Saskatchewan Water Corporation	-	-	-	-	-	-	-
Sub-total	450	342	-	-	-	-	480
TOTAL	**11,288**	**27,383**	**293**	**283**	**5,428**	**1,655**	**2,250**

Government of Saskatchewan

TABLE 21. Objectives of Expenditures in All Sciences, by Department or Agency 1987-88(e) - Continued

Department or agency	Social development					Transportation	Wildlife	Other	Total
	Culture, sport and recreation	Education	Human resources	Urban and regional studies	Other				
	($'000)								
Departments:									
Agriculture	-	-	272	-	-	-	-	-	26,357
Consumer and Commercial Affairs	-	-	-	-	17	-	-	23	40
Economic Development and Trade	-	-	-	-	-	-	-	-	-
Education	874	1,069	1,834	-	-	-	-	-	3,903
Energy and Mines	-	-	-	-	-	-	-	-	3,610
Environment and Public Safety	-	-	-	-	-	-	-	-	1,174
Executive Council	-	-	-	-	-	-	-	-	388
Finance	-	-	159	-	36	-	-	1,479	1,674
Health	-	-	-	-	-	-	-	-	10,725
Highways and Transportation	-	-	-	-	-	2,928	-	-	2,928
Human Resources, Labour and Employment	-	476	231	-	39	-	-	-	746
Justice	-	-	-	-	758	-	-	-	758
Parks, Recreation and Culture	1,155	-	-	-	210	-	221	-	2,395
Public Service Commission	-	-	130	-	-	-	-	-	130
Rural Development	-	-	-	22	-	228	-	-	250
Saskatchewan Telephones	-	-	-	-	-	-	-	-	16
Science and Technology	-	-	-	-	-	-	-	-	4,526
Social Services	-	-	-	-	3,107	-	-	-	3,220
Tourism, Small Business and Co-operative Development	-	-	-	-	-	-	-	-	353
Urban Affairs	-	-	-	400	-	-	-	-	400
Vote 35	-	-	-	-	-	-	-	-	6,443
Sub-total	2,029	1,545	2,626	422	4,167	3,156	221	1,502	70,036

Government of Saskatchewan

TABLE 21. Objectives of Expenditures in All Sciences, by Department or Agency 1987-88(e) - Concluded

Department or agency	Social development					Transportation	Wildlife	Other	Total
	Culture, sport and recreation	Education	Human resources	Urban and regional studies	Other				
	($'000)								
Agencies:									
Cancer Foundation	-	-	-	-	-	-	-	-	450
Highway Traffic Board	-	-	-	-	-	-	-	-	-
Saskatchewan Archives Board	805	-	-	-	-	-	-	-	805
Saskatchewan Assessment Management Agency	-	-	-	-	-	-	-	-	-
Saskatchewan Crop Insurance Corporation	-	-	-	-	-	-	-	-	332
Saskatchewan Housing Corporation	-	-	-	40	141	-	-	-	181
Saskatchewan Property Management Corporation	-	-	-	35	-	20	-	55	610
Saskatchewan Water Corporation	-	-	-	-	-	-	-	-	800
Sub-total	805	-	-	75	141	20	-	55	3,178
TOTAL	**2,834**	**1,545**	**2,626**	**497**	**4,308**	**3,176**	**221**	**1,557**	**73,214**

TABLE 22. Objectives of Expenditures in All Sciences, by Activity, 1987-88(a)

Objective	Intramural		Extramural		Total
	Research and development	Related scientific activities	Research and development	Related scientific activities	
	($'000)				
Advancement of science	125	63	412	198	798
Communications	-	-	-	16	16
Energy and fuels:					
Fossil fuels	125	175	948	1,950	3,198
Other	-	-	478	-	478
Environmental issues:					
Air	20	-	45	-	65
Land	-	177	-	89	266
Water	-	1,541	-	133	1,674
Other	-	-	1,375	-	1,375
Health	580	7,877	2,657	174	11,288
Industrial and economic development:					
Agriculture	249	2,427	20,324	4,383	27,383
Fisheries	284	-	9	-	293
Forestry	283	-	-	-	283
Manufacturing	-	1,952	2,366	1,110	5,428
Minerals	-	212	1,243	200	1,655
Other	20	284	1,442	504	2,250
Social development:					
Culture, sport and recreation	-	1,652	-	1,182	2,834
Education	-	1,469	-	76	1,545
Human resources	-	2,233	-	393	2,626
Urban and regional studies	5	332	-	160	497
Other	100	1,659	-	2,549	4,308
Transportation	257	1,782	337	800	3,176
Wildlife	8	88	79	46	221
Other	-	1,550	-	7	1,557
TOTAL	**2,056**	**25,473**	**31,715**	**13,970**	**73,214**

NATURAL SCIENCES

Government of Saskatchewan

TABLE 23. Total Expenditures in the Natural Sciences, by Activity, 1980-81 to 1987-88

Activity	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88(e)
	($'000)							
Research and development								
Current expenditures:								
In-house	1,688	1,951	2,688	2,748	2,392	2,408	2,994	1,643
Contracts	46	24	649	3,540	4,158	6,734	6,145	3,247
Grants	6,851	7,644	8,418	9,646	10,788	7,829	21,300	27,861
Fellowships	21	-	50	122	92	281	349	356
Sub-total	8,606	9,619	11,805	16,056	17,430	17,252	30,788	33,107
Capital expenditures	245	203	99	82	125	218	249	103
Related scientific activities								
Current expenditures:								
Education support	32	226	162	101	110	456	-	-
Technical surveys	4,189	4,387	5,469	4,353	3,445	4,169	4,864	7,915
Information services	187	112	734	2,024	2,368	2,006	2,475	2,508
Special services and studies	3,528	3,893	5,807	6,106	5,589	6,992	9,644	13,439
Museum services	489	700	82	113	178	171	219	227
Sub-total	8,425	9,318	12,254	12,697	11,690	13,794	17,202	24,089
Capital expenditures	180	158	175	64	217	120	130	25
TOTAL	**17,456**	**19,298**	**24,333**	**28,899**	**29,462**	**31,384**	**48,369**	**57,324**

Government of Saskatchewan

TABLE 24. Total Expenditures in the Natural Sciences, by Department or Agency, 1980-81 to 1987-88

Department or agency	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88(e)
	($'000)							
Departments:								
Agriculture	1,997	4,318	6,622	7,636	6,076	4,916	19,070	25,570
Culture and Recreation	541	770	165	166	215	206	246	...
Energy and Mines	5,052	2,820	3,623	5,183	4,274	3,437	5,422	3,610
Environment	517	737	991	687	755	1,773	1,273	...
Environment and Public Safety	...	...	...	...	...	...	...	1,174
Health	3,760	4,661	4,987	6,379	6,623	6,930	7,249	9,012
Highways and Transportation	996	1,055	1,443	1,415	1,628	2,412	3,083	2,928
Industry and Commerce	382	99	368	...	...	...	...	...
Northern Saskatchewan	354	279	...	...	...	...	...	...
Parks and Renewable Resources	...	...	2,208	1,980	1,409	1,362	1,362	...
Parks, Recreation and Culture	...	...	...	...	...	...	...	2,034
Rural Development	...	...	166	205	197	200	267	206
Science and Technology	...	...	...	640	2,415	3,992	4,177	4,210
Supply and Services	...	...	...	440	440	650	555	...
Tourism and Small Business	...	...	...	10	62	44	...	...
Tourism and Renewable Resorces	1,012	1,405	...	...	...	...	...	...
Vote 35	2,728	3,065	3,519	3,876	4,106	4,081	4,081	6,443
Sub-total	17,339	19,210	24,092	28,617	28,200	30,003	46,785	55,187
Agencies:								
Cancer Foundation	...	...	241	282	407	447	434	450
Government Insurance Corporation	57	62	...	...	...	...	...	...
Saskatchewan Crop Insurance Corporation	...	...	...	...	100	150	150	332
Saskatchewan Property Management Corporation	...	...	...	...	...	...	...	555
Saskatchewan Water Corporation	...	...	...	...	755	784	1,000	800
Transportation Agency of Saskatchewan	60	26	...	...	...	...	...	...
Sub-total	117	88	241	282	1,262	1,381	1,584	2,137
TOTAL	**17,456**	**19,298**	**24,333**	**28,899**	**29,462**	**31,384**	**48,369**	**57,324**

Government of Saskatchewan

TABLE 25. Total Expenditures in the Natural Sciences, by Performer, 1980-81 to 1987-88

Performer	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88(e)
	($'000)							
Intramural	9,383	9,842	12,580	13,960	12,768	13,340	15,084	16,940
Industry	3,229	1,043	2,444	4,271	4,554	4,795	8,553	9,303
Universities	1,761	3,746	4,837	5,754	6,244	4,733	8,278	10,859
Hospitals and health organizations	200	880	21	88	886	986	364	363
Saskatchewan Research Council (1)	2,811	3,626	3,834	4,225	4,400	6,962	7,429	8,548
Other	72	161	617	601	610	568	8,661	11,311
TOTAL	**17,456**	**19,298**	**24,333**	**28,899**	**29,462**	**31,384**	**48,369**	**57,324**

(1) Includes only Provincial Government payments to the SRC.

Government of Saskatchewan

TABLE 26. Current Expenditures on R&D in the Natural Sciences, by Department or Agency, 1980-81 to 1987-88

Department or agency	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88(e)
	($'000)							
Departments:								
Agriculture	1,997	4,036	4,879	4,554	4,989	4,196	16,265	19,565
Culture and Recreation	52	70	52	10	24	25	25	...
Energy and Mines	1,994	78	522	3,320	3,378	2,665	3,063	1,073
Environment	...	...	...	50	55	220	274	...
Environment and Public Safety	...	...	...	...	...	...	...	215
Health	978	1,468	1,521	2,269	2,536	2,744	2,783	2,588
Highways and Transportation	147	197	250	257	225	510	848	544
Industry and Commerce	382	99	344	...	...	...	...	...
Northern Saskatchewan	4	...	...	...	...	...	...	...
Parks and Renewable Resources	...	...	536	931	621	806	643	...
Parks, Recreation and Culture	...	...	...	...	...	...	...	713
Science and Technology	...	...	...	450	986	1,444	2,222	1,464
Supply and Services	...	...	...	70	70	72	50	...
Tourism and Renewable Resources	265	548	...	...	...	...	...	...
Tourism and Small Business	...	...	...	10	...	...	...	...
Vote 35	2,728	3,065	3,519	3,876	4,106	4,081	4,081	6,443
Sub-total	8,547	9,561	11,623	15,797	16,990	16,763	30,254	32,605
Agencies:								
Cancer Foundation	...	...	182	259	355	424	411	400
Government Insurance Corporation	54	57	...	...	...	...	...	...
Saskatchewan Crop Insurance Corporation	...	...	...	...	5	5	5	52
Saskatchewan Property Management Corporation	...	...	...	...	...	...	...	50
Saskatchewan Water Corporation	...	...	...	...	80	60	118	-
Transportation Agency of Saskatchewan	5	1	...	...	...	...	...	...
Sub-total	59	58	182	259	440	489	534	502
TOTAL	**8,606**	**9,619**	**11,805**	**16,056**	**17,430**	**17,252**	**30,788**	**33,107**

Government of Saskatchewan

TABLE 27. Current Expenditures on R&D in the Natural Sciences, by Performer, 1980-81 to 1987-88

Performer	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88(e)
	($'000)							
Intramural	1,688	1,951	2,700	3,243	2,827	2,763	3,251	1,778
Industry	2,239	154	846	3,249	3,497	2,553	4,972	4,340
Universities	1,679	3,524	4,524	5,380	5,562	4,063	6,829	8,608
Hospitals and health organizations	200	682	-	82	886	986	361	363
Saskatchewan Research Council (1)	2,728	3,218	3,555	3,908	4,278	6,649	7,321	8,503
Other	72	90	180	194	380	238	8,054	9,515
TOTAL	**8,606**	**9,619**	**11,805**	**16,056**	**17,430**	**17,252**	**30,788**	**33,107**

(1) Includes only Provincial Government payments to SRC.

TABLE 28. Personnel Engaged in Scientific Activities in the Natural Sciences, by Activity and Category, 1980-81 to 1987-88

Activity and category	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88(e)
	(person-years)							
Research and development:								
Scientific and professional	32	29	42	37	37	29	42	24
Technical	31	33	39	36	39	38	41	30
Other	10	7	8	4	7	5	5	2
Sub-total	73	69	89	77	83	72	88	56
Related scientific activities:								
Scientific and professional	58	58	86	60	62	63	46	49
Technical	109	97	156	145	127	133	109	104
Other	60	47	43	31	37	39	37	43
Sub-total	227	202	285	236	226	235	192	196
Total natural science activities:								
Scientific and professional	90	87	128	97	99	92	88	73
Technical	140	130	195	181	166	171	150	134
Other	70	54	51	35	44	44	42	45
TOTAL	**300**	**271**	**374**	**313**	**309**	**307**	**280**	**252**

Government of Saskatchewan

TABLE 29. Total Expenditures in the Natural Sciences, by Sources of Funds, 1986-87

Department or agency	Departmental budget	Transfers from other departments	Transfers from federal government	From trust funds	From other sources	Total
	($'000)					
Departments:						
Agriculture	18,566	-	-	136	368	19,070
Culture and Recreation	246	-	-	-	-	246
Energy and Mines	197	-	2,353	-	2,872	5,422
Environment	1,268	-	5	-	-	1,273
Health	6,893	-	356	-	-	7,249
Highways and Transportation	3,083	-	-	-	-	3,083
Parks and Renewable Resources	1,362	-	-	-	-	1,362
Rural Development	267	-	-	-	-	267
Science and Technology	1,029	-	264	2,884	-	4,177
Supply and Services	200	155	-	-	200	555
Vote 35	4,081	-	-	-	-	4,081
Sub-total	37,192	155	2,978	3,020	3,440	46,785
Agencies:						
Cancer Foundation	359	-	-	-	75	434
Saskatchewan Crop Insurance Corporation	150	-	-	-	-	150
Saskatchewan Water Corporation	1,000	-	-	-	-	1,000
Sub-total	1,509	-	-	-	75	1,584
TOTAL	**38,701**	**155**	**2,978**	**3,020**	**3,515**	**48,369**

Government of Saskatchewan

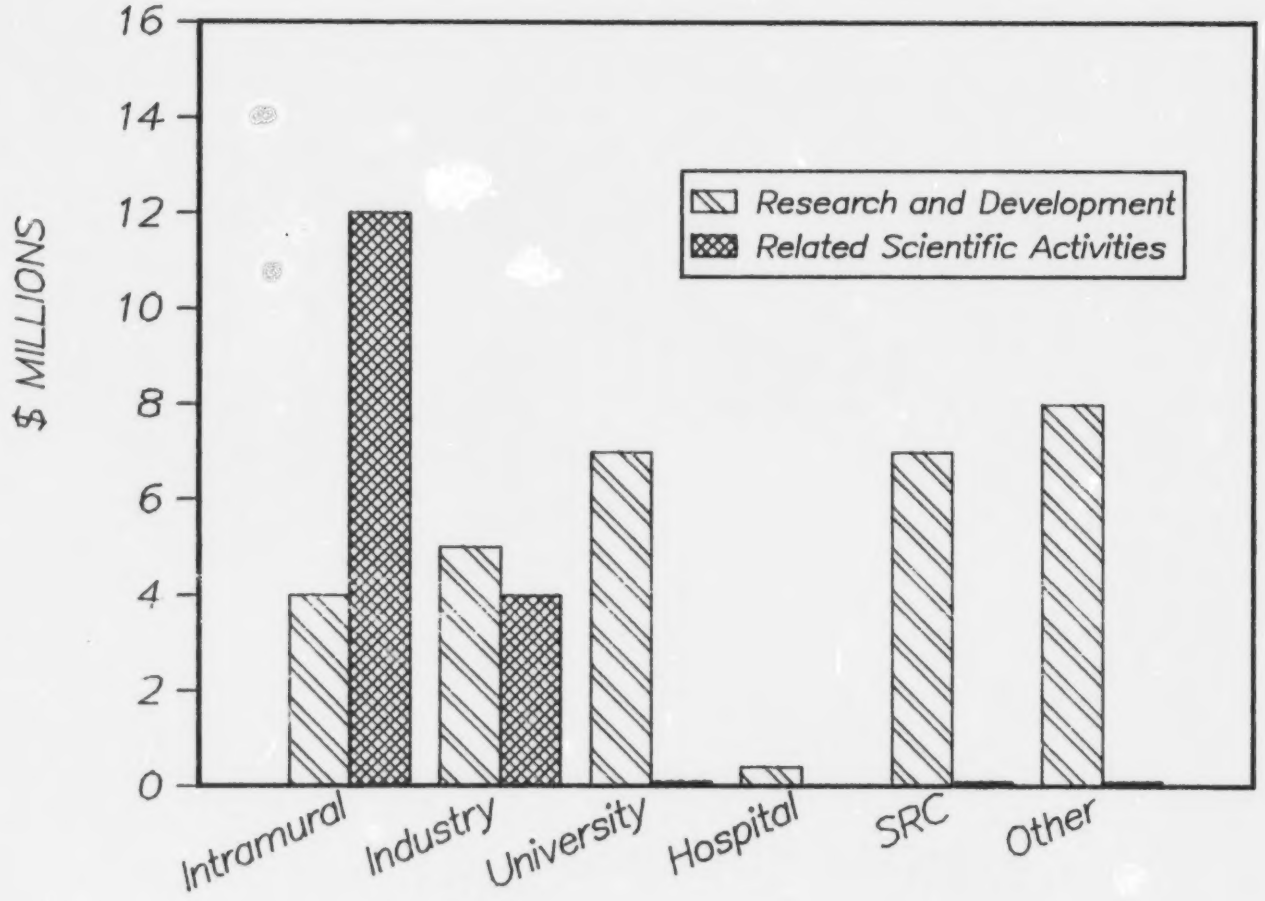
TABLE 30. Total Expenditures in the Natural Sciences, by Activity and Performer, 1986-87

Activity	Intramural	Industry	Universities	Hospitals and health organizations	Saskatchewan Research Council (1)	Other	Total
	($'000)						
Research and development							
Current expenditures:							
In-house	2,994	...	...	...	...	...	2,994
Contracts	257	2,881	439	-	2,499	69	6,145
Grants	-	2,091	6,041	361	4,822	7,985	21,300
Research fellowships	-	-	349	-	-	-	349
Sub-total	3,251	4,972	6,829	361	7,321	8,054	30,788
Capital expenditures	249	...	...	...	...	...	249
Related scientific activities							
Current expenditures:							
Education support	-	-	-	-	-	-	-
Technical surveys	3,255	601	958	-	-	50	4,864
Information services	1,938	151	300	3	83	-	2,475
Special services and studies	6,042	2,829	191	-	25	557	9,644
Museum services	219	-	-	-	-	-	219
Sub-total	11,454	3,581	1,449	3	108	607	17,202
Capital expenditures	130	...	...	...	...	...	130
TOTAL	**15,084**	**8,553**	**8,278**	**364**	**7,429**	**8,661**	**48,369**

(1) Includes only Provincial Government payments to the SRC.

Chart 2. Government of Saskatchewan

Total Expenditures in the Natural Sciences, by Activity and Performer, 1986—87



Government of Saskatchewan

TABLE 31. Total Expenditures in the Natural Sciences, by Department or Agency and Performer, 1986-87

Department or agency	Intramural	Industry	Universities	Hospitals and health organizations	Saskatchewan Research Council (1)	Other	Total
	($'000)						
Departments:							
Agriculture	1,331	2,246	6,673	2	741	8,077	19,070
Culture and Recreation	246	-	-	-	-	-	246
Energy and Mines	398	2,278	268	-	2,478	-	5,422
Environment	871	85	201	-	70	46	1,273
Health	5,751	-	598	362	-	538	7,249
Highways and Transportation	2,163	676	217	-	27	-	3,083
Parks and Renewable Resources	996	348	18	-	-	-	1,362
Rural Development	79	188	-	-	-	-	267
Science and Technology	1,390	2,452	303	-	32	-	4,177
Supply and Services	275	280	-	-	-	-	555
Vote 35	-	-	-	-	4,081	-	4,081
Sub-total	13,500	8,553	8,278	364	7,429	8,661	46,785
Agencies:							
Cancer Foundation	434	-	-	-	-	-	434
Saskatchewan Crop Insurance Corporation	150	-	-	-	-	-	150
Saskatchewan Water Corporation	1,000	-	-	-	-	-	1,000
Sub-total	1,584	-	-	-	-	-	1,584
TOTAL	**15,084**	**8,553**	**8,278**	**364**	**7,429**	**8,661**	**48,369**

(1) Includes only Provincial Government payments to the SRC.

Government of Saskatchewan

TABLE 32. Total Expenditures in the Natural Sciences, by Department or Agency and Activity, 1986-87

Department or agency	Research and development			Related scientific activities			Total
	Current	Capital	Total	Current	Capital	Total	
	($'000)						
Departments:							
Agriculture	16,265	-	16,265	2,805	-	2,805	19,070
Culture and Recreation	25	-	25	219	2	221	246
Energy and Mines	3,063	-	3,063	2,359	-	2,359	5,422
Environment	274	-	274	999	-	999	1,273
Health	2,783	2	2,785	4,361	103	4,464	7,249
Highways and Transportation	848	224	1,072	2,011	-	2,011	3,083
Parks and Renewable Resources	643	-	643	719	-	719	1,362
Rural Development	-	-	-	267	-	267	267
Science and Technology	2,222	-	2,222	1,955	-	1,955	4,177
Supply and Services	50	-	50	480	25	505	555
Vote 35	4,081	-	4,081	-	-	-	4,081
Sub-total	30,254	226	30,480	16,175	130	16,305	46,785
Agencies:							
Cancer Foundation	411	23	434	-	-	-	434
Saskatchewan Crop Insurance Corporation	5	-	5	145	-	145	150
Saskatchewan Water Corporation	118	-	118	882	-	882	1,000
Sub-total	534	23	557	1,027	-	1,027	1,584
TOTAL	**30,788**	**249**	**31,037**	**17,202**	**130**	**17,332**	**48,369**

Government of Saskatchewan

TABLE 33. Total Expenditures on R&D in the Natural Sciences, by Department or Agency and Performer, 1986-87

Department or agency	Intramural	Industry	Universities	Hospitals and health organizations	Saskatchewan Research Council (1)	Other	Total
	($'000)						
Departments:							
Agriculture	232	2,091	5,688	2	741	7,511	16,265
Culture and Recreation	25	-	-	-	-	-	25
Energy and Mines	150	316	170	-	2,427	-	3,063
Environment	24	-	200	-	45	5	274
Health	1,338	-	550	359	-	538	2,785
Highways and Transportation	486	347	212	-	27	-	1,072
Parks and Renewable Resources	556	78	9	-	-	-	643
Science and Technology	107	2,115	-	-	-	-	2,222
Supply and Services	25	25	-	-	-	-	50
Vote 35	-	-	-	-	4,081	-	4,081
Sub-total	2,943	4,972	6,829	361	7,321	8,054	30,480
Agencies:							
Cancer Foundation	434	-	-	-	-	-	434
Saskatchewan Crop Insurance Corporation	5	-	-	-	-	-	5
Saskatchewan Water Corporation	118	-	-	-	-	-	118
Sub-total	557	-	-	-	-	-	557
TOTAL	**3,500**	**4,972**	**6,829**	**361**	**7,321**	**8,054**	**31,037**

(1) Includes only Provincial Government payments to the SRC.

Government of Saskatchewan

TABLE 34. Intramural Expenditures in the Natural Sciences, by Department or Agency and Type of Expenditure, 1986-87

Department or agency	Current expenditures		Capital expenditures	Total
	Personnel costs	Other costs		
	($'000)			
Departments:				
Agriculture	700	631	-	1,331
Culture and Recreation	165	79	2	246
Energy and Mines	143	255	-	398
Environment	689	182	-	871
Health	3,702	1,944	105	5,751
Highways and Transportation	800	1,139	224	2,163
Parks and Renewable Resources	826	170	-	996
Rural Development	68	11	-	79
Science and Technology	791	599	-	1,390
Supply and Services	225	25	25	275
Vote 35	-	-	-	-
Sub-total	8,109	5,035	356	13,500
Agencies:				
Cancer Foundation	343	68	23	434
Saskatchewan Crop Insurance Corporation	100	50	-	150
Saskatchewan Water Corporation	960	40	-	1,000
Sub-total	1,403	158	23	1,584
TOTAL	**9,512**	**5,193**	**379**	**15,084**

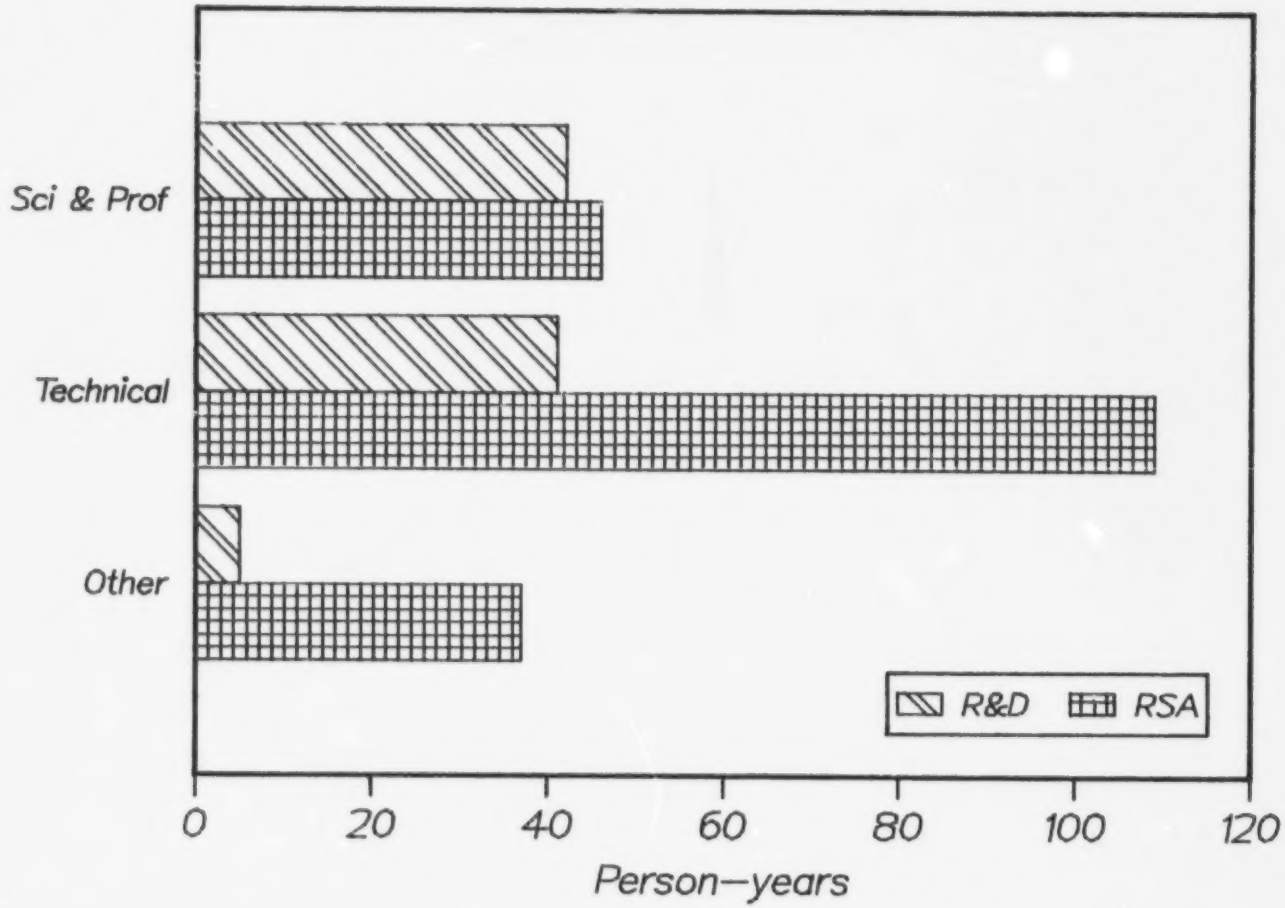
Government of Saskatchewan

TABLE 35. Personnel Engaged in Scientific Activities in the Natural Sciences, by Department or Agency, 1986-87

Department or agency	Research and development				Related scientific activities			
	Scientific and professional	Technical	Other	Total	Scientific and professional	Technical	Other	Total
	(person-years)							
Departments:								
Agriculture	10	-	-	10	8	-	-	8
Culture and Recreation	1	-	-	1	3	1	-	4
Energy and Mines	1	-	1	2	1	-	1	2
Environment	-	1	-	1	3	15	-	18
Health	13	16	3	32	12	55	24	91
Highways and Transportation	3	3	1	7	1	8	6	15
Parks and Renewable Resources	6	5	-	11	6	4	-	10
Rural Development	-	-	-	-	-	1	1	2
Science and Technology	2	-	-	2	10	-	5	15
Supply and Services	1	-	-	1	1	5	-	6
Vote 35	-	-	-	-	-	-	-	-
Sub-total	37	25	5	67	45	89	37	171
Agencies:								
Cancer Foundation	-	16	-	16	-	-	-	-
Saskatchewan Crop Insurance Corporation	-	-	-	-	1	1	-	2
Saskatchewan Water Corporation	5	-	-	5	-	19	-	19
Sub-total	5	16	-	21	1	20	-	21
TOTAL	**42**	**41**	**5**	**88**	**46**	**109**	**37**	**192**

Chart 3. Government of Saskatchewan

Personnel Engaged in Scientific Activities in the Natural Sciences, by Activity and Category, 1986–87



Government of Saskatchewan

TABLE 36. Objectives of Expenditures in the Natural Sciences, by Department or Agency, 1986-87

Department or agency	Advancement of science	Energy and fuels		Environmental issues				Health
		Fossil fuels	Other	Air	Land	Water	Other	
	($'000)							
Departments:								
Agriculture	-	-	-	-	-	-	-	-
Culture and Recreation	25	-	-	-	-	-	-	-
Energy and Mines	-	4,984	-	-	-	-	-	-
Environment	-	-	-	74	186	813	200	-
Health	-	-	-	-	-	-	-	7,249
Highways and Transportation	-	-	-	-	-	-	-	-
Parks and Renewable Resources	-	-	-	-	-	62	-	-
Rural Development	-	-	-	-	-	-	-	-
Science and Technology	300	-	-	-	-	-	-	-
Supply and Services	-	-	-	-	10	-	-	-
Vote 35	261	-	257	-	-	-	775	-
Sub-total	586	4,984	257	74	196	875	975	7,249
Agencies:								
Cancer Foundation	-	-	-	-	-	-	-	434
Saskatchewan Crop Insurance Corporation	-	-	-	-	-	-	-	-
Saskatchewan Water Corporation	-	-	-	-	-	1,000	-	-
Sub-total	-	-	-	-	-	1,000	-	434
TOTAL	**586**	**4,984**	**257**	**74**	**196**	**1,875**	**975**	**7,683**

TABLE 36. Objectives of Expenditures in the Natural Sciences, by Department or Agency, 1986-87 - Continued

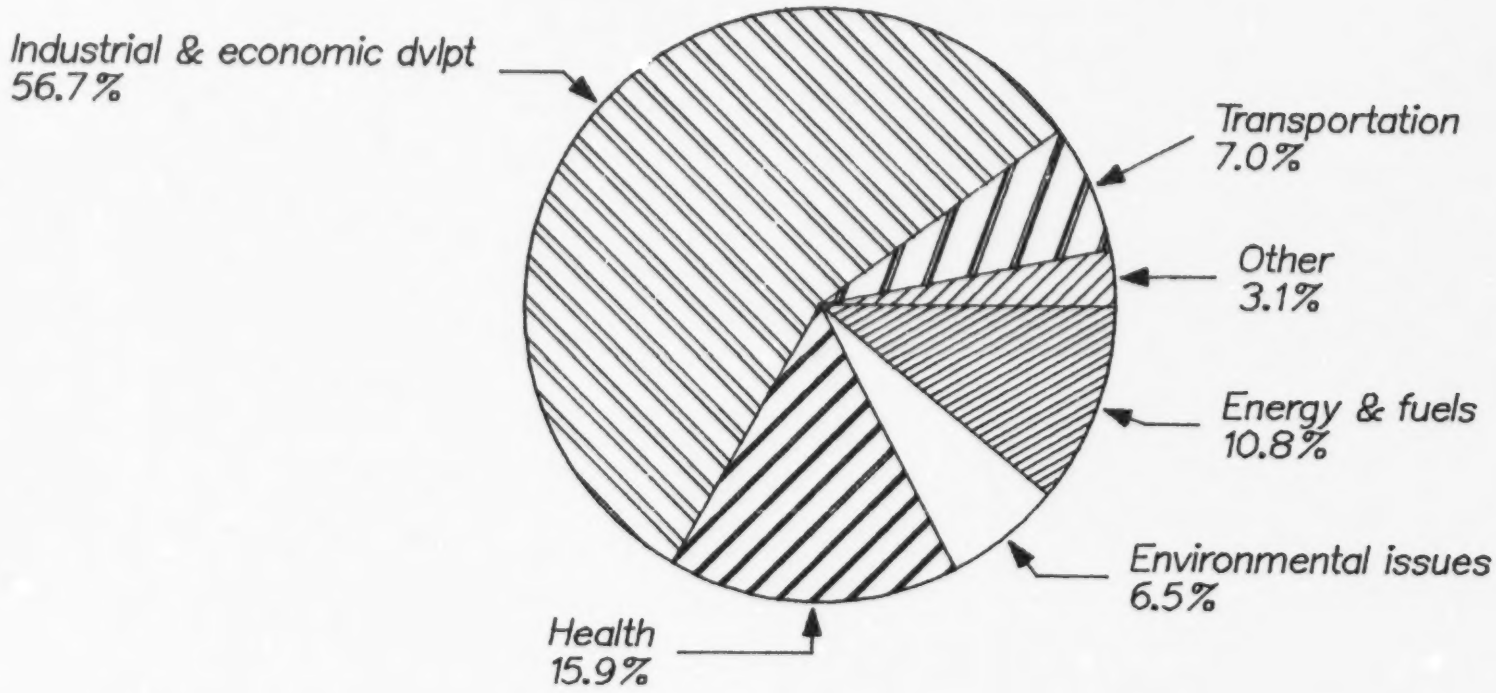
Department or agency	Industrial and economic development					
	Agriculture	Fisheries	Forestry	Manufacturing	Minerals	Other
	($'000)					
Departments:						
Agriculture	19,070	-	-	-	-	-
Culture and Recreation	-	-	-	-	-	-
Energy and Mines	-	-	-	-	438	-
Environment	-	-	-	-	-	-
Health	-	-	-	-	-	-
Highways and Transportation	-	-	-	-	-	-
Parks and Renewable Resources	-	320	303	-	-	-
Rural Development	-	-	-	-	-	-
Science and Technology	-	-	-	3,877	-	-
Supply and Services	10	-	-	-	-	480
Vote 35	531	-	-	572	787	898
Sub-total	19,611	320	303	4,449	1,225	1,378
Agencies:						
Cancer Foundation	-	-	-	-	-	-
Saskatchewan Crop Insurance Corporation	150	-	-	-	-	-
Saskatchewan Water Corporation	-	-	-	-	-	-
Sub-total	150	-	-	-	-	-
TOTAL	**19,761**	**320**	**303**	**4,449**	**1,225**	**1,378**

TABLE 36. Objectives of Expenditures in the Natural Sciences, by Department or Agency, 1986-87 - Concluded

Department or agency	Social development		Transportation	Wildlife	Total
	Culture, sport and recreation	Urban and regional studies			
	($'000)				
Departments:					
Agriculture	-	-	-	-	19,070
Culture and Recreation	221	-	-	-	246
Energy and Mines	-	-	-	-	5,422
Environment	-	-	-	-	1,273
Health	-	-	-	-	7,249
Highways and Transportation	-	-	3,083	-	3,083
Parks and Renewable Resources	630	-	-	47	1,362
Rural Development	-	-	267	-	267
Science and Technology	-	-	-	-	4,177
Supply and Services	-	35	20	-	555
Vote 35	-	-	-	-	4,081
Sub-total	851	35	3,370	47	46,785
Agencies:					
Cancer Foundation	-	-	-	-	434
Saskatchewan Crop Insurance Corporation	-	-	-	-	150
Saskatchewan Water Corporation	-	-	-	-	1,000
Sub-total	-	-	-	-	1,584
TOTAL	**851**	**35**	**3,370**	**47**	**48,369**

Chart 4. Government of Saskatchewan

Objectives of Expenditures in the Natural Sciences, 1986-87



Government of Saskatchewan

TABLE 37. Objectives of Expenditures in the Natural Sciences, by Activity, 1986-87

Objective	Intramural		Extramural		Total
	Research and development	Related scientific activities	Research and development	Related scientific activities	
	($'000)				
Advancement of science	25	-	261	300	586
Energy and fuels:					
Fossil fuels	150	166	2,913	1,755	4,984
Other	-	-	257	-	257
Environmental issues:					
Air	24	-	50	-	74
Land	-	107	-	89	196
Water	118	1,663	-	94	1,875
Other	-	-	975	-	975
Health	1,772	4,413	1,447	51	7,683
Industrial and economic development:					
Agriculture	237	1,254	16,564	1,706	19,761
Fisheries	291	-	29	-	320
Forestry	235	10	58	-	303
Manufacturing	107	1,283	2,687	372	4,449
Minerals	-	82	787	356	1,225
Other	20	210	923	225	1,378
Social development:					
Culture, sport and recreation	9	620	-	222	851
Urban and regional studies	5	10	-	20	35
Transportation	486	1,766	586	532	3,370
Wildlife	21	-	-	26	47
TOTAL	**3,500**	**11,584**	**27,537**	**5,748**	**48,369**

Government of Saskatchewan

TABLE 38. Total Expenditures in the Natural Sciences, by Activity and Performer, 1987-88(e)

Activity	Intramural	Industry	Universities	Hospitals and health organizations	Saskatchewan Research Council (1)	Other	Total
	($'000)						
Research and development							
Current expenditures:							
In-house	1,643	...	...	...	...	...	1,643
Contracts	135	1,938	522	-	568	84	3,247
Grants (1)	-	2,402	7,730	363	7,935	9,431	27,861
Research fellowships	-	-	356	-	-	-	356
Sub-total	1,778	4,340	8,608	363	8,503	9,515	33,107
Capital expenditures	103	...	...	...	...	...	103
Related scientific activities							
Current expenditures:							
Education support	-	-	-	-	-	-	-
Technical surveys	5,225	725	1,886	-	-	79	7,915
Information services	1,353	1,135	-	-	20	-	2,508
Special services and studies	8,229	3,103	365	-	25	1,717	13,439
Museum services	227	-	-	-	-	-	227
Sub-total	15,034	4,963	2,251	-	45	1,796	24,089
Capital expenditures	25	...	...	...	...	...	25
TOTAL	**16,940**	**9,303**	**10,859**	**363**	**8,548**	**11,311**	**57,324**

(1) Includes only Provincial Government payments to the SRC.

Government of Saskatchewan

TABLE 39. Total Expenditures in the Natural Sciences, by Department or Agency and Performer, 1987-88(e)

Department or agency	Intramural	Industry	Universities	Hospitals and health organizations	Saskatchewan Research Council (1)	Other	Total
	($'000)						
Departments:							
Agriculture	2,125	2,691	8,531	4	954	11,265	25,570
Energy and Mines	512	2,350	215	-	533	-	3,610
Environment and Public Safety	827	85	151	-	65	46	1,174
Health	6,503	-	1,612	359	538	-	9,012
Highways and Transportation	1,956	670	302	-	-	-	2,928
Parks, Recreation and Culture	1,522	498	14	-	-	-	2,034
Rural Development	51	155	-	-	-	-	206
Science and Technology	1,636	2,574	-	-	-	-	4,210
Vote 35	-	-	-	-	6,443	-	6,443
Sub-total	15,132	9,023	10,825	363	8,533	11,311	55,187
Agencies:							
Cancer Foundation	450	-	-	-	-	-	450
Saskatchewan Crop Insurance Corporation	283	-	34	-	15	-	332
Saskatchewan Property Management Corporation	275	280	-	-	-	-	555
Saskatchewan Water Corporation	800	-	-	-	-	-	800
Sub-total	1,808	280	34	-	15	-	2,137
TOTAL	**16,940**	**9,303**	**10,859**	**363**	**8,548**	**11,311**	**57,324**

(1) Includes only Provincial Government payments to the SRC.

Government of Saskatchewan

TABLE 40. Total Expenditures in the Natural Sciences, by Department or Agency and Activity, 1987-88(e)

Department or agency	Research and development			Related scientific activites			Total
	Current	Capital	Total	Current	Captial	Total	
	($'000)						
Departments:							
Agriculture	19,565	-	19,565	6,005	-	6,005	25,570
Energy and Mines	1,073	-	1,073	2,537	-	2,537	3,610
Environment and Public Safety	215	-	215	959	-	959	1,174
Health	2,588	3	2,591	6,421	-	6,421	9,012
Highways and Transportation	544	50	594	2,334	-	2,334	2,928
Parks, Recreation and Culture	713	-	713	1,321	-	1,321	2,034
Rural Development	-	-	-	206	-	206	206
Science and Technology	1,464	-	1,464	2,746	-	2,746	4,210
Vote 35	6,443	-	6,443	-	-	-	6,443
Sub-total	32,605	53	32,658	22,529	-	22,529	55,187
Agencies:							
Cancer Foundation	400	50	450	-	-	-	450
Saskatchewan Crop Insurance Corporation	52	-	52	280	-	280	332
Saskatchewan Property Managment Corporation	50	-	50	480	25	505	555
Saskatchewan Water Corporation	-	-	-	800	-	800	800
Sub-total	502	50	552	1,560	25	1,585	2,137
TOTAL	**33,107**	**103**	**33,210**	**24,089**	**25**	**24,114**	**57,324**

Government of Saskatchewan

TABLE 41. Total Expenditures on R&D in the Natural Sciences, by Department or Agency and Performer, 1987-88(e)

Department or agency	Intramural	Industry	Universities	Hospitals and health organizations	Saskatchewan Research Council (1)	Other	Total
	($'000)						
Departments:							
Agriculture	246	2,402	6,449	4	954	9,510	19,565
Energy and Mines	125	285	150	-	513	-	1,073
Environment and Public Safety	20	-	150	-	40	5	215
Health	130	-	1,564	359	538	-	2,591
Highways and Transportation	257	85	252	-	-	-	594
Parks, Recreation and Culture	625	79	9	-	-	-	713
Science and Technology	-	1,464	-	-	-	-	1,464
Vote 35	-	-	-	-	6,443	-	6,443
Sub-total	1,403	4,315	8,574	363	8,488	9,515	32,658
Agencies:							
Cancer Foundation	450	-	-	-	-	-	450
Saskatchewan Crop Insurance Corporation	3	-	34	-	15	-	52
Saskatchewan Property Management Corporation	25	25	-	-	-	-	50
Saskatchewan Water Corporation	-	-	-	-	-	-	-
Sub-total	478	25	34	-	15	-	552
TOTAL	**1,881**	**4,340**	**8,608**	**363**	**8,503**	**9,515**	**33,210**

(1) Includes only Provincial Government payments to the SRC.

Government of Saskatchewan

TABLE 42. Personnel Engaged in Scientific Activities in the Natural Sciences, by Department or Agency, 1987-88(e)

Department or agency	Research and development				Related scientific activities			
	Scientific and professional	Technical	Other	Total	Scientific and professional	Technical	Other	Total
	(person-years)							
Departments:								
Agriculture	10	-	-	10	8	-	-	8
Energy and Mines	1	-	1	2	1	-	1	2
Environment and Public Safety	-	1	-	1	3	13	-	16
Health	1	2	-	3	12	55	24	91
Highways and Transportation	2	3	1	6	1	8	5	14
Parks, Recreation and Culture	9	8	-	17	12	5	-	17
Rural Development	-	-	-	-	1	1	-	2
Science and Technology	-	-	-	-	8	-	11	19
Vote 35	-	-	-	-	-	-	-	-
Sub-total	23	14	2	39	46	82	41	169
Agencies:								
Cancer Foundation	-	16	-	16	-	-	-	-
Saskatchewan Crop Insurance Corporation	-	-	-	-	2	1	2	5
Saskatchewan Property Management Corporation	1	-	-	1	1	5	-	6
Saskatchewan Water Corporation	-	-	-	-	-	16	-	16
Sub-total	1	16	-	17	3	22	2	27
TOTAL	**24**	**30**	**2**	**56**	**49**	**104**	**43**	**196**

Government of Saskatchewan

TABLE 43. Objectives of Expenditures in the Natural Sciences, by Department or Agency, 1987-88(e)

Department or agency	Advancement of science	Energy and fuels		Environmental issues				Health
		Fossil fuels	Other	Air	Land	Water	Other	
	($'000)							
Departments:								
Agriculture	-	-	-	-	-	-	-	-
Energy and Mines	-	3,198	-	-	-	-	-	-
Environment and Public Safety	-	-	-	65	186	773	150	-
Health	-	-	-	-	-	-	-	9,012
Highways and Transportation	-	-	-	-	-	-	-	-
Parks, Recreation and Culture	50	-	-	-	70	101	-	-
Rural Development	-	-	-	-	-	-	-	-
Science and Technology	-	-	-	-	-	-	-	-
Vote 35	412	-	406	-	-	-	1,225	-
Sub-total	462	3,198	406	65	256	874	1,375	9,012
Agencies:								
Cancer Foundation	-	-	-	-	-	-	-	450
Saskatchewan Crop Insurance Corporation	-	-	-	-	-	-	-	-
Saskatchewan Property Management Corporation	-	-	-	-	10	-	-	-
Saskatchewan Water Corporation	-	-	-	-	-	800	-	-
Sub-total	-	-	-	-	10	800	-	450
TOTAL	**462**	**3,198**	**406**	**65**	**266**	**1,674**	**1,375**	**9,462**

Government of Saskatchewan

TABLE 43. Objectives of Expenditures in the Natural Sciences by Department or Agency, 1987-88(e) - Continued

Department or agency	Industrial and economic development					
	Agriculture	Fisheries	Forestry	Manufacturing	Minerals	Other
	($'000)					
Departments:						
Agriculture	25,570	-	-	-	-	-
Energy and Mines	-	-	-	-	412	-
Environment and Public Safety	-	-	-	-	-	-
Health	-	-	-	-	-	-
Highways and Transportation	-	-	-	-	-	-
Parks and Renewable Resources	-	293	283	-	-	-
Rural Development	-	-	-	-	-	-
Science and Technology	-	-	-	4,210	-	-
Vote 35	838	-	-	902	1,243	1,417
Sub-total	26,408	293	283	5,112	1,655	1,417
Agencies:						
Cancer Foundation	-	-	-	-	-	-
Saskatchewan Crop Insurance Corporation	332	-	-	-	-	-
Saskatchewan Property Management Corporation	10	-	-	-	-	480
Saskatchewan Water Corporation	-	-	-	-	-	-
Sub-total	342	-	-	-	-	480
TOTAL	**26,750**	**293**	**283**	**5,112**	**1,655**	**1,897**

Government of Saskatchewan

TABLE 43. Objectives of Expenditures in the Natural Sciences by Department or Agency 1987-88(e) - Concluded

Department or agency	Social development		Transportation	Wildlife	Total
	Culture, sport and recreation	Urban and regional studies			
	($'000)				
Departments:					
Agriculture	-	-	-	-	25,570
Energy and Mines	-	-	-	-	3,610
Environment and Public Safety	-	-	-	-	1,174
Health	-	-	-	-	9,012
Highways and Transportation	-	-	2,928	-	2,928
Parks, Recreation and Culture	1,016	-	-	221	2,034
Rural Development	-	-	206	-	206
Science and Technology	-	-	-	-	4,210
Vote 35	-	-	-	-	6,443
Sub-total	1,016	-	3,134	221	55,187
Agencies:					
Cancer Foundation	-	-	-	-	450
Saskatchewan Crop Insurance Corporation	-	-	-	-	332
Saskatchewan Property Management Corporation	-	35	20	-	555
Saskatchewan Water Corporation	-	-	-	-	800
Sub-total	-	35	20	-	2,137
TOTAL	**1,016**	**35**	**3,154**	**221**	**57,324**

TABLE 44. Objectives of Expenditures in the Natural Sciences, by Activity, 1987-88(e)

Objective	Intramural		Extramural		Total
	Research and development	Related scientific activities	Research and development	Related scientific activities	
	($'000)				
Advancement of science	50	-	412	-	462
Energy and fuels:					
Fossil fuels	125	175	948	1,950	3,198
Other	-	-	406	-	406
Environmental issues:					
Air	20	-	45	-	65
Land	-	177	-	89	266
Water	-	1,541	-	133	1,674
Other	-	-	1,375	-	1,375
Health	580	6,373	2,461	48	9,462
Industrial and economic development:					
Agriculture	249	2,169	20,206	4,126	26,750
Fisheries	284	-	9	-	293
Forestry	283	-	-	-	283
Manufacturing	-	1,636	2,366	1,110	5,112
Minerals	-	212	1,243	200	1,655
Other	20	210	1,442	225	1,897
Social development:					
Culture, sport and recreation	-	708	-	308	1,016
Urban and regional studies	5	10	-	20	35
Transportation	257	1,760	337	800	3,154
Wildlife	8	88	79	46	221
TOTAL	**1,881**	**15,059**	**31,329**	**9,055**	**57,324**

SOCIAL SCIENCES AND HUMANITIES

Government of Saskatchewan

TABLE 45. Total Expenditures in the Social Sciences and Humanities, by Activity, 1980-81 to 1987-88

Activity	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88(e)
	($'000)							
Research and development								
Current expenditures:								
In-house	938	682	128	320	271	288	398	175
Contracts	316	330	117	255	107	85	80	190
Grants	987	275	219	207	298	301	301	196
Research fellowships	17	20	21	-	-	-	-	-
Sub-total	2,258	1,307	485	782	676	674	779	561
Capital expenditures	8	-	-	-	42	3	-	-
Related scientific activities								
Current expenditures	6,682	7,492	8,103	10,803	15,630	18,423	15,791	15,323
Capital expenditures	138	20	65	93	588	13	10	6
TOTAL	**9,086**	**8,819**	**8,653**	**11,678**	**16,936**	**19,113**	**16,580**	**15,890**

Government of Saskatchewan

TABLE 46. Total Expenditures in the Social Sciences and Humanities, by Department or Agency, 1980-81 to 1987-88

Department or agency	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88(e)
	($'000)							
Departments:								
Advanced Education and Manpower	459	534	560	170	1,328	2,538	3,608	...
Agriculture	515	450	944	971	537	995	679	787
Consumer and Commercial Affairs	2	...	75	75	295	50	40	40
Co-operation and Co-operative Development	529	168	...	219	224	232	132	...
Culture and Recreation	83	90	139	192	249	301	340	...
Economic Development and Trade	...	...	...	556	647	756	...	...
Education	177	149	197	158	200	322	231	3,903
Executive Council	253	299	401	260	538	465	278	388
Finance	...	...	...	...	1,052	1,132	1,501	1,674
Health	2,686	1,947	1,699	2,665	2,685	2,596	1,761	1,713
Human Resources, Labour and Employment	...	...	...	...	...	...	...	746
Indian and Native Affairs Secretariat	...	...	...	188	205	307	262	...
Industry and Commerce	243	423	390	...	...	...	...	...
Justice	...	...	...	1,295	1,495	2,226	383	758
Labour	458	655	694	675	212	278	509	...
Northern Saskatchewan	...	175	...	...	...	...	...	...
Parks and Renewable Resources	...	...	...	256	...	...	...	...
Parks, Recreation and Culture	...	...	...	...	...	...	...	361
Public Service Commission	...	...	...	...	202	215	112	130
Revenue and Financial Services	...	...	...	110	102	228	373	...
Rural Development	146	130	...	...	67	49	44	44
Saskatchewan Library	...	...	...	...	30	112	148	...
Saskatchewan Telephones	...	...	...	...	...	...	16	16
Science and Technology	...	...	...	12	62	...	310	316
Social Services	1,202	1,421	1,575	1,824	2,892	3,757	3,220	3,220
Supply and Services	...	...	...	420	1,514	119	55	...
Tourism and Renewable Resources	330	377	...	...	...	...	...	...
Tourism and Small Business	...	...	186	80	202	136	338	...
Tourism, Small Business and Co-operative Development	...	...	...	...	...	...	...	353
Urban Affairs	747	761	794	460	785	415	437	400
Women's Secretariat	...	...	...	...	38	30	24	...
Sub-total	7,830	7,579	7,654	10,586	15,561	17,259	14,801	14,849

Government of Saskatchewan

TABLE 46. Total Expenditures in the Social Sciences and Humanities, by Department or Agency, 1980-81 to 1987-88 - Concluded

Department or agency	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88(e)
	($'000)							
Agencies:								
Employment Development Agency	...	...	...	...	...	379	562	...
Highway Traffic Board	178	97	127	90	84	84	...	...
Saskatchewan Archives Board	722	772	872	1,002	920	1,102	1,023	805
Saskatchewan Assessment Authority	...	...	...	...	53	55	13	...
Saskatchewan Housing Corporation	356	371	...	...	318	234	181	181
Saskatchewan Property Management Corporation	...	...	...	...	...	...	...	55
Sub-total	1,256	1,240	999	1,092	1,375	1,854	1,779	1,041
TOTAL	**9,086**	**8,819**	**8,653**	**11,678**	**16,936**	**19,113**	**16,580**	**15,890**

Government of Saskatchewan

TABLE 47. Total Expenditures in the Social Sciences and Humanities, by Performer, 1980-81 to 1987-88

Performer	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88(e)
	($'000)							
Intramural	6,811	6,396	6,818	9,076	11,583	11,495	11,110	10,589
Industry	951	1,251	914	1,230	3,112	5,105	2,831	2,757
Universities	59	468	321	654	788	1,879	1,753	1,885
Hospitals and health organizations	950	177	119	115	-	-	5	-
Saskatchewan Research Council (1)	19	160	35	2	60	9	-	8
Other	296	367	446	601	1,393	625	881	651
TOTAL	**9,086**	**8,819**	**8,653**	**11,678**	**16,936**	**19,113**	**16,580**	**15,890**

(1) Includes only Provincial Government payments to the SRC.

Government of Saskatchewan

TABLE 48. Current Expenditures on R&D in the Social Sciences and Humanities, by Department or Agency, 1980-81 to 1987-88

Department or agency	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88(e)
	($'000)							
Departments:								
Advanced Education and Manpower	32	20	21	...	...	...	...	...
Agriculture	78	36	43	100	...	...	...	...
Consumer and Commercial Affairs	...	...	12	12	...	...	...	...
Co-operation and Co-operative Development	104	...	...	...	...	...	...	...
Culture and Recreation	83	90	13	8	12	15	120	...
Education	...	...	...	...	...	...	...	63
Executive Council	61	65	134	65	181	142	80	190
Health	1,515	752	170	274	310	354	392	83
Parks and Renewable Resources	...	...	...	90	...	...	...	...
Parks, Recreation and Culture	...	...	...	...	...	...	...	112
Saskatchewan Library	...	...	...	...	...	19	74	...
Social Services	33	...	92	133	141	144	113	113
Supply and Services	...	...	...	100	32	...	...	...
Tourism and Renewable Resources	270	300	...	...	...	...	...	...
Sub-total	2,176	1,263	485	782	676	674	779	561
Agencies:								
Highway Traffic Board	50	...	...	...	...	...	...	...
Saskatchewan Archives Board	32	...	...	...	...	...	...	...
Saskatchewan Housing Corporation	...	44	...	...	...	...	...	...
Sub-total	82	44	...	...	...	...	...	...
TOTAL	**2,258**	**1,307**	**485**	**782**	**676**	**674**	**779**	**561**

TABLE 49. Current Expenditures on R&D in the Social Sciences and Humanities, by Performer, 1980-81 to 1987-88

Performer	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88(e)
	($'000)							
Intramural	971	682	128	320	271	288	398	175
Industry	255	300	-	130	107	77	72	72
Universities	17	181	159	190	234	269	299	304
Hospitals and health organizations	950	114	119	107	-	-	-	-
Saskatchewan Research Council (1)	-	-	-	-	37	-	-	-
Other	65	30	79	35	27	40	10	10
TOTAL	**2,258**	**1,307**	**485**	**782**	**676**	**674**	**779**	**561**

(1) Includes only Provincial Government payments to the SRC.

TABLE 50. Personnel Engaged in Scientific Activities in the Social Sciences and Humanities, by Activity and by Category, 1980-81 to 1987-88

Activity and category	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88(e)
	(person-years)							
Research and development:								
Scientific and professional	25	15	7	7	5	3	5	4
Technical	10	9	1	1	3	4	3	1
Other	5	4	-	-	1	-	-	-
Sub-total	40	28	8	8	9	7	8	5
Related scientific activities:								
Scientific and professional	95	101	108	134	156	192	171	167
Technical	17	13	16	24	13	17	17	15
Other	45	44	46	69	74	78	39	34
Sub-total	157	158	170	227	243	287	227	216
Total social science activities:								
Scientific and professional	120	116	115	141	161	195	176	171
Technical	27	22	17	25	16	21	20	16
Other	50	48	46	69	75	78	39	34
TOTAL	**197**	**186**	**178**	**235**	**252**	**294**	**235**	**221**

Government of Saskatchewan

TABLE 51. Total Expenditures in the Social Sciences and Humanities, by Sources of Funds, 1986-87

Department or agency	Departmental budget	Transfers from other departments	Transfers from federal government	From trust funds	From other sources	Total
	($'000)					
Departments:						
Advanced Education and Manpower	3,465	-	143	-	-	3,608
Agriculture	665	-	-	-	14	679
Consumer and Commercial Affairs	40	-	-	-	-	40
Co-operation and Co-operative Development	132	-	-	-	-	132
Culture and Recreation	340	-	-	-	-	340
Economic Development and Trade	-	-	-	-	-	-
Education	231	-	-	-	-	231
Executive Council	278	-	-	-	-	278
Finance	1,501	-	-	-	-	1,501
Health	1,621	-	111	-	29	1,761
Indian and Native Affairs Secretariat	262	-	-	-	-	262
Justice	383	-	-	-	-	383
Labour	509	-	-	-	-	509
Public Service Commission	112	-	-	-	-	112
Revenue and Financial Services	373	-	-	-	-	373
Rural Development	44	-	-	-	-	44
Saskatchewan Library	144	-	4	-	-	148
Saskatchewan Telephones	16	-	-	-	-	16
Science and Technology	310	-	-	-	-	310
Social Services	3,220	-	-	-	-	3,220
Supply and Services	55	-	-	-	-	55
Tourism and Small Business	338	-	-	-	-	338
Urban Affairs	437	-	-	-	-	437
Women's Secretariat	24	-	-	-	-	24
Sub-total	14,500	-	258	-	43	14,801

Government of Saskatchewan

TABLE 51. Total Expenditures in the Social Sciences and Humanities, by Sources of Funds, 1986-87 - Concluded

Department or agency	Departmental budget	Transfers from other departments	Transfers from federal government	From trust funds	From other sources	Total
	($'000)					
Agencies:						
Employment Development Agency	562	-	-	-	-	562
Highway Traffic Board	-	-	-	-	-	-
Saskatchewan Archives Board	853	18	84	-	68	1,023
Saskatchewan Assessment Authority	13	-	-	-	-	13
Saskatchewan Housing Corporation	181	-	-	-	-	181
Sub-total	1,609	18	84	-	68	1,779
TOTAL	**16,109**	**18**	**342**	**-**	**111**	**16,580**

Government of Saskatchewan

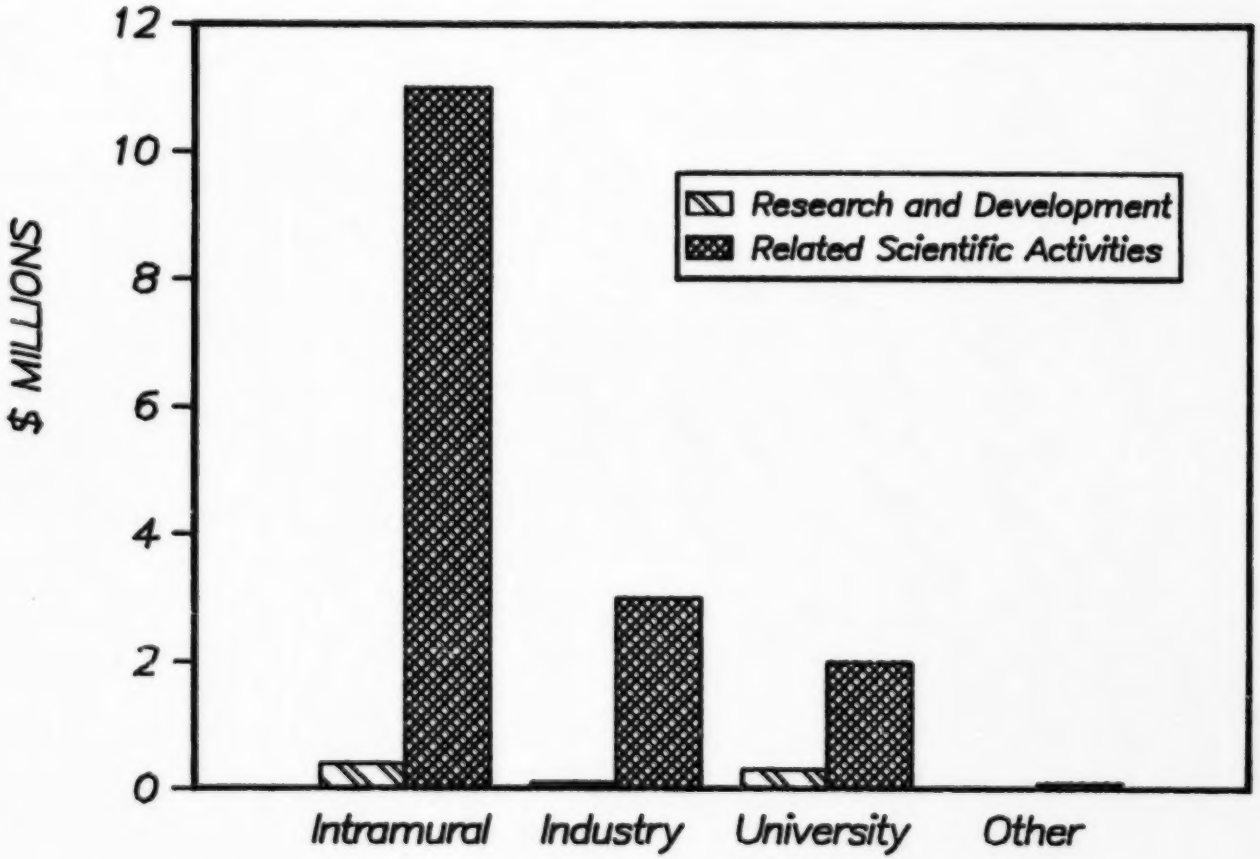
TABLE 52. Total Expenditures in the Social Sciences and Humanities, by Activity and Performer, 1986-87

Activity	Intramural	Industry	Universities	Hospitals and health organizations	Saskatchewan Research Council (1)	Other	Total
	($'000)						
Research and development							
Current expenditures:							
In-house	398	...	...	...	...	...	398
Contracts	-	72	8	-	-	-	80
Grants	-	-	291	-	-	10	301
Research fellowships	-	-	-	-	-	-	-
Sub-total	398	72	299	-	-	10	779
Capital expenditures	-	...	...	...	...	...	-
Related scientific activities							
Current expenditures	10,702	2,759	1,454	5	-	871	15,791
Capital expenditures	10	...	...	...	...	...	10
TOTAL	**11,110**	**2,831**	**1,753**	**5**	**-**	**881**	**16,580**

(1) Includes only Provincial Government payments to the SRC.

Chart 5. Government of Saskatchewan

Total Expenditures in the Social Sciences and Humanities, by Activity and Performer, 1986–87



Government of Saskatchewan

TABLE 53. Total Expenditures in the Social Sciences and Humanities, by Department or Agency and Performer, 1986-87

Department or agency	Intramural	Industry	Universities	Hospitals and health organizations	Saskatchewan Research Council (1)	Other	Total
	($'000)						
Departments:							
Advanced Education and Manpower	2,734	-	874	-	-	-	3,608
Agriculture	228	150	191	-	-	110	679
Consumer and Commercial Affairs	40	-	-	-	-	-	40
Co-operation and Co-operative Development	-	-	132	-	-	-	132
Culture and Recreation	250	2	19	-	-	69	340
Economic Development and Trade	-	-	-	-	-	-	-
Education	142	-	66	-	-	23	231
Executive Council	-	72	69	-	-	137	278
Finance	1,501	-	-	-	-	-	1,501
Health	1,401	99	251	-	-	10	1,761
Indian and Native Affairs Secretariat	39	-	-	-	-	223	262
Justice	218	165	-	-	-	-	383
Labour	504	-	-	5	-	-	509
Public Service Commission	107	-	-	-	-	5	112
Revenue and Financial Services	223	150	-	-	-	-	373
Rural Development	44	-	-	-	-	-	44
Saskatchewan Library	148	-	-	-	-	-	148
Saskatchewan Telephones	-	10	-	-	-	6	16
Science and Technology	310	-	-	-	-	-	310
Social Services	1,034	1,925	103	-	-	158	3,220
Supply and Services	55	-	-	-	-	-	55
Tourism and Small Business	105	197	8	-	-	28	338
Urban Affairs	325	-	-	-	-	112	437
Women's Secretariat	24	-	-	-	-	-	24
Sub-total	9,432	2,770	1,713	5	-	881	14,801

Government of Saskatchewan

TABLE 53. Total Expenditures in the Social Sciences and Humanities, by Department or Agency and Performer, 1986-87 - Concluded

Department or agency	Intramural	Industry	Universities	Hospitals and health organizations	Saskatchewan Research Council (1)	Other	Total
	($'000)						
Agencies:							
Employment Development Agency	562	-	-	-	-	-	562
Highway Traffic Board	-	-	-	-	-	-	-
Saskatchewan Archives Board	1,023	-	-	-	-	-	1,023
Saskatchewan Assessment Authority	13	-	-	-	-	-	13
Saskatchewan Housing Corporation	80	61	40	-	-	-	181
Sub-total	1,678	61	40	-	-	-	1,779
TOTAL	**11,110**	**2,831**	**1,753**	**5**	**-**	**881**	**16,580**

(1) Includes only Provincial Government payments to the SRC.

Government of Saskatchewan

TABLE 54. Total Expenditures in the Social Science and Humanities, by Department or Agency and Activity, 1986-87

Department or agency	Research and development			Related Scientific Activities			Total
	Current	Capital	Total	Current	Capital	Total	
	($'000)						
Departments:							
Advanced Education and Manpower	-	-	-	3,608	-	3,608	3,608
Agriculture	-	-	-	679	-	679	679
Consumer and Commercial Affairs	-	-	-	40	-	40	40
Co-operation and Co-operative Development	-	-	-	132	-	132	132
Culture and Recreation	120	-	120	220	-	220	340
Economic Development and Trade	-	-	-	-	-	-	-
Education	-	-	-	231	-	231	231
Executive Council	80	-	80	198	-	198	278
Finance	-	-	-	1,501	-	1,501	1,501
Health	392	-	392	1,359	10	1,369	1,761
Indian and Native Affairs Secretariat	-	-	-	262	-	262	262
Justice	-	-	-	383	-	383	383
Labour	-	-	-	509	-	509	509
Public Service Commission	-	-	-	112	-	112	112
Revenue and Financial Services	-	-	-	373	-	373	373
Rural Development	-	-	-	44	-	44	44
Saskatchewan Library	74	-	74	74	-	74	148
Saskatchewan Telephones	-	-	-	16	-	16	16
Science and Technology	-	-	-	310	-	310	310
Social Services	113	-	113	3,107	-	3,107	3,220
Supply and Services	-	-	-	55	-	55	55
Tourism and Small Business	-	-	-	338	-	338	338
Urban Affairs	-	-	-	437	-	437	437
Women's Secretariat	-	-	-	24	-	24	24
Sub-total	779	-	779	14,012	10	14,022	14,801

Government of Saskatchewan

TABLE 54. Total Expenditures in the Social Science and Humanities, by Department or Agency and Activity, 1986-87 - Concluded

Department or agency	Research and development			Related scientific activities			Total
	Current	Capital	Total	Current	Capital	Total	
	($'000)						
Agencies:							
Employment Development Agency	-	-	-	562	-	562	562
Highway Traffic Board	-	-	-	-	-	-	-
Saskatchewan Archives Board	-	-	-	1,023	-	1,023	1,023
Saskatchewan Assessment Authority	-	-	-	13	-	13	13
Saskatchewan Housing Corporation	-	-	-	181	-	181	181
Sub-total	-	-	-	1,779	-	1,779	1,779
TOTAL	**779**	**-**	**779**	**15,791**	**10**	**15,801**	**16,580**

Government of Saskatchewan

TABLE 55. Total Expenditures on R&D in the Social Sciences and Humanities, by Department or Agency and Performer, 1986-87

Department or agency	Intramural	Industry	Universities	Hospitals and health organizations	Saskatchewan Research Council (1)	Other	Total
	($'000)						
Departments:							
Culture and Recreation	120	-	-	-	-	-	120
Executive Council	-	72	8	-	-	-	80
Health	204	-	188	-	-	-	392
Saskatchewan Library	74	-	-	-	-	-	74
Social Services	-	-	103	-	-	10	113
TOTAL	**398**	**72**	**299**	**-**	**-**	**10**	**779**

(1) Includes only Provincial Government payments to the SRC.

Government of Saskatchewan

TABLE 56. Intramural Expenditures in the Social Sciences and Humanities, by Department or Agency and Type of Expenditure, 1986-87

Department or agency	Current expenditures		Capital expenditures	Total
	Personnel costs	Other costs		
	($'000)			
Departments:				
Advanced Education and Manpower	2,379	355	-	2,734
Agriculture	228	-	-	228
Consumer and Commercial Affairs	37	3	-	40
Co-operation and Co-operative Development	-	-	-	-
Culture and Recreation	237	13	-	250
Economic Development and Trade	-	-	-	-
Education	118	24	-	142
Executive Council	-	-	-	-
Finance	1,201	300	-	1,501
Health	932	459	10	1,401
Indian and Native Affairs Secretariat	39	-	-	39
Justice	175	43	-	218
Labour	424	80	-	504
Public Service Commission	107	-	-	107
Revenue and Financial Services	223	-	-	223
Rural Development	44	-	-	44
Saskatchewan Library	108	40	-	148
Saskatchewan Telephones	-	-	-	-
Science and Technology	218	92	-	310
Social Services	540	494	-	1,034
Supply and Services	55	-	-	55
Tourism and Small Business	83	22	-	105
Urban Affairs	300	25	-	325
Women's Secretariat	24	-	-	24
Sub-total	7,472	1,950	10	9,432

TABLE 56. Intramural Expenditures in the Social Sciences and Humanities, by Department or Agency and Type of Expenditure, 1986-87 - Concluded

Department or agency	Current expenditures		Capital expenditures	Total
	Personnel costs	Other costs		
	($'000)			
Agencies:				
Employment Development Agency	350	212	-	562
Highway Traffic Board	-	-	-	-
Saskatchewan Archives Board	767	256	-	1,023
Saskatchewan Assessment Authority	7	6	-	13
Saskatchewan Housing Corporation	80	-	-	80
Sub-total	1,204	474	-	1,678
TOTAL	**8,676**	**2,424**	**10**	**11,110**

Government of Saskatchewan

TABLE 57. Personnel Engaged in Scientific Activities in the Social Sciences and Humanities, by Department or Agency, 1986-87

Department or agency	Research and development				Related scientific activities			
	Scientific and professional	Technical	Other	Total	Scientific and professional	Technical	Other	Total
	(person-years)							
Departments:								
Advanced Education and Manpower	-	-	-	-	51	5	-	56
Agriculture	-	-	-	-	5	-	6	11
Consumer and Commercial Affairs	-	-	-	-	1	-	-	1
Co-operation and Co-operative Development	-	-	-	-	-	-	-	-
Culture and Recreation	2	-	-	2	3	-	1	4
Economic Development and Trade	-	-	-	-	-	-	-	-
Education	-	-	-	-	2	-	1	3
Executive Council	-	-	-	-	-	-	-	-
Finance	-	-	-	-	22	-	5	27
Health	1	2	-	3	15	3	3	21
Indian and Native Affairs Secretariat	-	-	-	-	1	-	-	1
Justice	-	-	-	-	2	3	-	5
Labour	-	-	-	-	9	-	3	12
Public Service Commission	-	-	-	-	3	-	-	3
Revenue and Financial Services	-	-	-	-	6	-	-	6
Rural Development	-	-	-	-	1	-	-	1
Saskatchewan Library	2	1	-	3	1	2	-	3
Saskatchewan Telephones	-	-	-	-	-	-	-	-
Science and Technology	-	-	-	-	3	1	1	5
Social Services	-	-	-	-	11	3	-	14
Supply and Services	-	-	-	-	2	-	-	2
Tourism and Small Business	-	-	-	-	2	-	1	3
Urban Affairs	-	-	-	-	7	-	-	7
Women's Secretariat	-	-	-	-	1	-	-	1
Sub-total	5	3	-	8	148	17	21	186

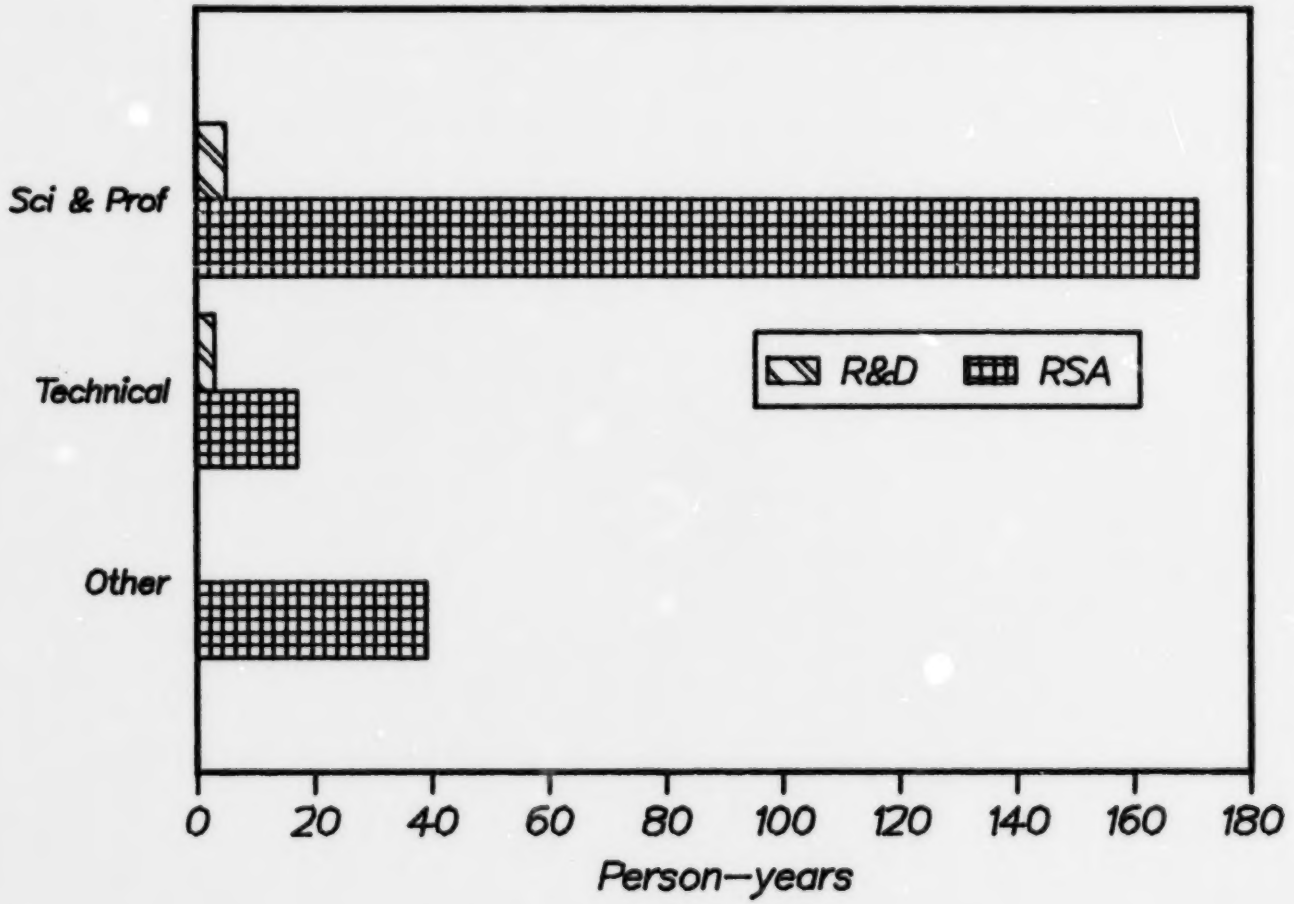
Government of Saskatchewan

TABLE 57. Personnel Engaged in Scientific Activities in the Social Sciences and Humanities, by Department or Agency, 1986-87 - Concluded

Department or agency	Research and development				Related scientific activities			
	Scientific and professional	Technical	Other	Total	Scientific and professional	Technical	Other	Total
	(person-years)							
Agencies:								
Employment Development Agency	-	-	-	-	6	-	2	8
Highway Traffic Board	-	-	-	-	-	-	-	-
Saskatchewan Archives Board	-	-	-	-	15	-	16	31
Saskatchewan Assessment Authority	-	-	-	-	-	-	-	-
Saskatchewan Housing Corporation	-	-	-	-	2	-	-	2
Sub-total	-	-	-	-	23	-	18	41
TOTAL	**5**	**3**	**-**	**8**	**171**	**17**	**39**	**227**

Chart 6. Government of Saskatchewan

Personnel Engaged in Scientific Activities in the Social Sciences and Humanities by Activity and Category, 1986–87



Government of Saskatchewan

TABLE 58. Objectives of Expenditures in the Social Sciences and Humanities, by Department or Agency, 1986-87

Department or agency	Advancement of science	Communications	Energy and fuels
			Fossil fuels
	($'000)		
Departments:			
Advanced Education and Manpower	-	-	-
Agriculture	-	-	-
Consumer and Commercial Affairs	-	-	-
Co-operation and Co-operative Development	-	-	-
Culture and Recreation	10	-	-
Economic Development and Trade	-	-	-
Education	-	-	-
Executive Council	198	-	15
Finance	-	-	-
Health	-	-	-
Indian and Native Affairs Secretariat	-	-	-
Justice	-	-	-
Labour	-	-	-
Public Service Commission	-	-	-
Revenue and Financial Services	-	-	-
Rural Development	-	-	-
Saskatchewan Library	148	-	-
Saskatchewan Telephones	-	16	-
Science and Technology	-	-	-
Social Services	-	-	-
Supply and Services	-	-	-
Tourism and Small Business	-	-	-
Urban Affairs	-	-	-
Women's Secretariat	-	-	-
Sub-total	356	16	15

Government of Saskatchewan

TABLE 58. Objectives of Expenditures in the Social Sciences and Humanities, by Department or Agency, 1986-87 - Continued

Department or agency	Advancement of science	Communications	Energy and fuels
			Fossil fuels
	($'000)		
Agencies:			
Employment Development Agency	-	-	-
Highway Traffic Board	-	-	-
Saskatchewan Archives Board	-	-	-
Saskatchewan Assessment Authority	-	-	-
Saskatchewan Housing Corporation	-	-	-
Sub-total	-	-	-
TOTAL	**356**	**16**	**15**

Government of Saskatchewan

TABLE 58. Objectives of Expenditures in the Social Sciences and Humanities, by Department or Agency, 1986-87 - Continued

Department or agency	Health	Industrial and economic development				
		Agriculture	Fisheries	Forestry	Manufacturing	Other
	($'000)					
Departments:						
Advanced Education and Manpower	-	-	-	-	-	-
Agriculture	-	444	-	-	-	-
Consumer and Commercial Affairs	-	-	-	-	-	-
Co-operation and Co-operative Development	-	-	-	-	-	132
Culture and Recreation	-	-	-	-	-	-
Economic Development and Trade	-	-	-	-	-	-
Education	-	-	-	-	-	-
Executive Council	-	45	3	2	-	-
Finance	-	-	-	-	-	-
Health	1,761	-	-	-	-	-
Indian and Native Affairs Secretariat	-	-	-	-	-	-
Justice	-	-	-	-	-	-
Labour	5	-	-	-	-	-
Public Service Commission	-	-	-	-	-	-
Revenue and Financial Services	-	-	-	-	-	-
Rural Development	-	-	-	-	-	-
Saskatchewan Library	-	-	-	-	-	-
Saskatchewan Telephones	-	-	-	-	-	-
Science and Technology	-	-	-	-	310	-
Social Services	113	-	-	-	-	-
Supply and Services	-	-	-	-	-	-
Tourism and Small Business	-	-	-	-	-	338
Urban Affairs	-	-	-	-	-	-
Women's Secretariat	-	-	-	-	-	-
Sub-total	1,879	489	3	2	310	470

Government of Saskatchewan

TABLE 58. Objectives of Expenditures in the Social Sciences and Humanities, by Department or Agency, 1986-87 - Continued

Department or agency	Health	Industrial and economic development				
		Agriculture	Fisheries	Forestry	Manufacturing	Other
	($'000)					
Agencies:						
Employment Development Agency	-	-	-	-	-	-
Highway Traffic Board	-	-	-	-	-	-
Saskatchewan Archives Board	-	-	-	-	-	-
Saskatchewan Assessment Authority	-	13	-	-	-	-
Saskatchewan Housing Corporation	-	-	-	-	-	-
Sub-total	-	13	-	-	-	-
TOTAL	**1,879**	**502**	**3**	**2**	**310**	**470**

Government of Saskatchewan

TABLE 58. Objectives of Expenditures in the Social Sciences and Humanities, by Department or Agency, 1986-87 - Continued

Department or agency	Social development					Transportation	Other	Total
	Culture, sport and recreation	Education	Human resources	Urban and regional studies	Other			
	($'000)							
Departments:								
Advanced Education and Manpower	874	900	1,834	-	-	-	-	3,608
Agriculture	-	-	235	-	-	-	-	679
Consumer and Commercial Affairs	-	-	-	-	20	-	20	40
Co-operation and Co-operative Development	-	-	-	-	-	-	-	132
Culture and Recreation	130	-	-	-	200	-	-	340
Economic Development and Trade	-	-	-	-	-	-	-	-
Education	-	231	-	-	-	-	-	231
Executive Council	-	-	-	15	-	-	-	278
Finance	-	-	-	-	-	-	1,501	1,501
Health	-	-	-	-	-	-	-	1,761
Indian and Native Affairs Secretariat	-	-	-	-	262	-	-	262
Justice	-	-	-	-	383	-	-	383
Labour	-	-	483	-	21	-	-	509
Public Service Commission	-	-	112	-	-	-	-	112
Revenue and Financial Services	-	-	186	-	31	-	156	373
Rural Development	-	-	-	22	-	22	-	44
Saskatchewan Library	-	-	-	-	-	-	-	148
Saskatchewan Telephones	-	-	-	-	-	-	-	16
Science and Technology	-	-	-	-	-	-	-	310
Social Services	-	-	-	-	3,107	-	-	3,220
Supply and Services	-	-	-	-	-	-	55	55
Tourism and Small Business	-	-	-	-	-	-	-	338
Urban Affairs	-	-	-	437	-	-	-	437
Women's Secretariat	-	-	24	-	-	-	-	24
Sub-total	1,004	1,131	2,874	474	4,024	22	1,732	14,801

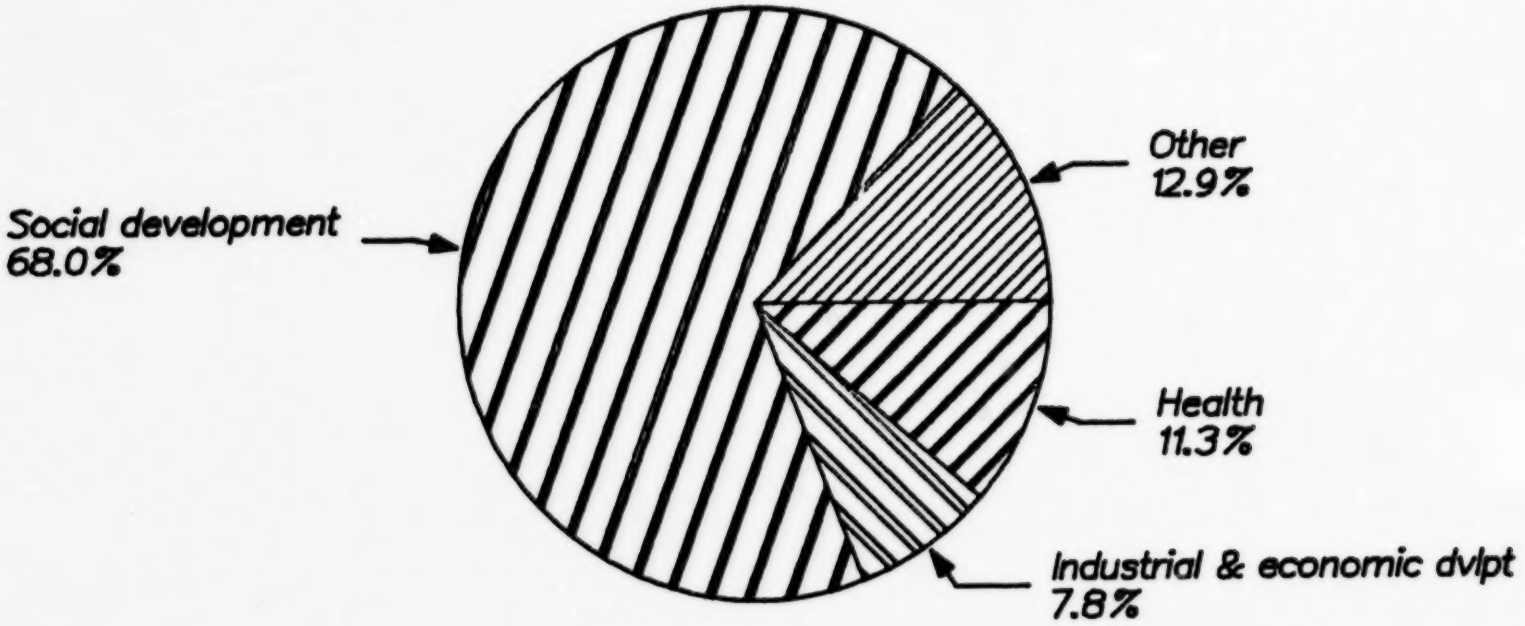
Government of Saskatchewan

TABLE 58. Objectives of Expenditures in the Social Sciences and Humanities, by Department or Agency, 1986-87 - Concluded

Department or agency	Social development					Transportation	Other	Total
	Culture, sport and recreation	Education	Human resources	Urban and regional studies	Other			
	($'000)							
Agencies:								
Employment Development Agency	-	-	562	-	-	-	-	562
Highway Traffic Board	-	-	-	-	-	-	-	-
Saskatchewan Archives Board	1,023	-	-	-	-	-	-	1,023
Saskatchewan Assessment Authority	-	-	-	-	-	-	-	13
Saskatchewan Housing Corporation	-	-	-	40	141	-	-	181
Sub-total	1,023	-	562	40	141	-	-	1,779
TOTAL	**2,027**	**1,13[illegible]**	**3,436**	**514**	**4,165**	**22**	**1,732**	**16,580**

Chart 7. Government of Saskatchewan

Objectives of Expenditures in the Social Sciences and Humanities, 1986–87



Government of Saskatchewan

TABLE 59. Objectives of Expenditures in the Social Sciences and Humanities, by Activity, 1986-87

Objective	Intramural		Extramural		Total
	Research and development	Related scientific activities	Research and development	Related scientific activities	
	($'000)				
Advancement of science	84	74	-	198	356
Communications	-	-	-	16	16
Energy and fuels:					
Fossil fuels	-	-	15	-	15
Health	204	1,197	301	177	1,879
Industrial and economic development:					
Agriculture	-	241	45	216	502
Fisheries	-	-	3	-	3
Forestry	-	-	2	-	2
Manufacturing	-	310	-	-	310
Other	-	105	-	365	470
Social development:					
Culture, sport and recreation	-	1,153	-	874	2,027
Education	-	1,042	-	89	1,131
Human resources	-	3,046	-	390	3,436
Urban and regional studies	-	347	15	152	514
Other	110	1,443	-	2,612	4,165
Transportation	-	22	-	-	22
Other	-	1,732	-	-	1,732
TOTAL	**398**	**10,712**	**381**	**5,089**	**16,580**

Government of Saskatchewan

TABLE 60. Total Expenditures in the Social Sciences and Humanities, by Activity and Performer, 1987-88(e)

Activity	Intramural	Industry	Universities	Hospitals and health organizations	Saskatchewan Research Council (1)	Other	Total
	($'000)						
Research and development							
Current expenditures:							
In-house	175	...	...	...	...	...	175
Contracts	-	72	118	-	-	-	190
Grants	-	-	186	-	-	10	196
Research fellowships	-	-	-	-	-	-	-
Sub-total	175	72	304	-	-	10	561
Capital expenditures	-	...	...	...	...	...	-
Related scientific activities							
Current expenditures	10,408	2,685	1,581	-	8	641	15,323
Capital expenditures	6	...	...	...	...	...	6
TOTAL	**10,589**	**2,757**	**1,885**	**-**	**8**	**651**	**15,890**

(1) Includes only Provincial Government payments to the SRC.

Government of Saskatchewan

TABLE 61. Total Expenditures in the Social Sciences and Humanities, by Department or Agency and Performer, 1987-88(e)

Department or agency	Intramural	Industry	Universities	Hospitals and health organizations	Saskatchewan Research Council (1)	Other	Total
	($'000)						
Departments:							
Agriculture	258	87	317	-	8	117	787
Consumer and Commercial Affairs	33	7	-	-	-	-	40
Economic Development and Trade	-	-	-	-	-	-	-
Education	2,970	-	905	-	-	28	3,903
Executive Council	-	72	179	-	-	137	388
Finance	1,568	106	-	-	-	-	1,674
Health	1,504	63	146	-	-	-	1,713
Human Resources, Labour and Employment	724	4	18	-	-	-	746
Justice	453	305	-	-	-	-	758
Parks, Recreation and Culture	251	-	35	-	-	75	361
Public Service Commission	120	10	-	-	-	-	130
Rural Development	44	-	-	-	-	-	44
Saskatchewan Telephones	-	10	-	-	-	6	16
Science and Technology	316	-	-	-	-	-	316
Social Services	1,034	1,925	103	-	-	158	3,220
Tourism, Small Business and Co-operative Development	74	107	142	-	-	30	353
Urban Affairs	300	-	-	-	-	100	400
Sub-total	9,649	2,696	1,845	-	8	651	14,849
Agencies:							
Highway Traffic Board	-	-	-	-	-	-	-
Saskatchewan Archives Board	805	-	-	-	-	-	805
Saskatchewan Assessment Management Agency	-	-	-	-	-	-	-
Saskatchewan Housing Corporation	80	61	40	-	-	-	181
Saskatchewan Property Management Corporation	55	-	-	-	-	-	55
Sub-total	940	61	40	-	-	-	1,041
TOTAL	**10,589**	**2,757**	**1,885**	**-**	**8**	**651**	**15,890**

(1) Includes only Provincial Government payments to the SRC.

Government of Saskatchewan

TABLE 62. Total Expenditures in the Social Science and Humanities, by Department or Agency and Activity, 1987-88(e)

Department or agency	Research and development			Related scientific activities			Total
	Current	Capital	Total	Current	Capital	Total	
	($'000)						
Departments:							
Agriculture	-	-	-	787	-	787	787
Consumer and Commercial Affairs	-	-	-	40	-	40	40
Economic Development and Trade	-	-	-	-	-	-	-
Education	63	-	63	3,840	-	3,840	3,903
Executive Council	190	-	190	198	-	198	388
Finance	-	-	-	1,674	-	1,674	1,674
Health	83	-	83	1,630	-	1,630	1,713
Human Resources, Labour and Employment	-	-	-	746	-	746	746
Justice	-	-	-	758	-	758	758
Parks, Recreation and Culture	112	-	112	243	6	249	361
Public Service Commission	-	-	-	130	-	130	130
Rural Development	-	-	-	44	-	44	44
Saskatchewan Telephones	-	-	-	16	-	16	16
Science and Technology	-	-	-	316	-	316	316
Social Services	113	-	113	3,107	-	3,107	3,220
Tourism, Small Business and Co-operative Development	-	-	-	353	-	353	353
Urban Affairs	-	-	-	400	-	400	400
Sub-total	561	-	561	14,282	6	14,288	14,849
Agencies:							
Highway Traffic Board	-	-	-	-	-	-	-
Saskatchewan Archives Board	-	-	-	805	-	805	805
Saskatchewan Assessment Management Agency	-	-	-	-	-	-	-
Saskatchewan Housing Corporation	-	-	-	181	-	181	181
Saskatchewan Property Management Corporation	-	-	-	55	-	55	55
Sub-total	-	-	-	1,041	-	1,041	1,041
TOTAL	**561**	**-**	**561**	**15,323**	**6**	**15,329**	**15,890**

Government of Saskatchewan

TABLE 63. Total Expenditures on R&D in the Social Sciences and Humanities, by Department or Agency and Performer, 1987-88(e)

Department or agency	Intramural	Industry	Universities	Hospitals and health organizations	Saskatchewan Research Council (1)	Other	Total
	($'000)						
Departments:							
Education	63	-	-	-	-	-	63
Executive Council	-	72	118	-	-	-	190
Health	-	-	83	-	-	-	83
Parks, Recreation and Culture	112	-	-	-	-	-	112
Social Services	-	-	103	-	-	10	113
TOTAL	**175**	**72**	**304**	**-**	**-**	**10**	**561**

(1) Includes only Provincial Government payments to the SRC.

Government of Saskatchewan

TABLE 64. Personnel Engaged in Scientific Activities in the Social Sciences and Humanities, by Department or Agency, 1987-88(e)

Department or agency	Research and development				Related scientific activities			
	Scientific and professional	Technical	Other	Total	Scientific and professional	Technical	Other	Total
	(person-years)							
Departments:								
Agriculture	-	-	-	-	6	-	6	12
Consumer and Commercial Affairs	-	-	-	-	1	-	-	1
Economic Development and Trade	-	-	-	-	-	-	-	-
Education	2	1	-	3	54	7	1	62
Executive Council	-	-	-	-	-	-	-	-
Finance	-	-	-	-	25	-	5	30
Health	-	-	-	-	17	3	3	23
Human Resources, Labour and Employment	-	-	-	-	14	-	4	18
Justice	-	-	-	-	6	1	-	7
Parks, Recreation and Culture	2	-	-	2	3	1	-	4
Public Service Commission	-	-	-	-	3	-	-	3
Rural Development	-	-	-	-	1	-	-	1
Saskatchewan Telephones	-	-	-	-	-	-	-	-
Science and Technology	-	-	-	-	4	-	1	5
Social Services	-	-	-	-	11	3	-	14
Tourism, Small Business and Co-operative Development	-	-	-	-	1	-	1	2
Urban Affairs	-	-	-	-	5	-	-	5
Sub-total	4	1	-	5	151	15	21	187
Agencies:								
Highway Traffic Board	-	-	-	-	-	-	-	-
Saskatchewan Archives Board	-	-	-	-	12	-	13	25
Saskatchewan Assessment Management Agency	-	-	-	-	-	-	-	-
Saskatchewan Housing Corporation	-	-	-	-	2	-	-	2
Saskatchewan Property Management Corporation	-	-	-	-	2	-	-	2
Sub-total	-	-	-	-	16	-	13	29
TOTAL	**4**	**1**	**-**	**5**	**167**	**15**	**34**	**216**

Government of Saskatchewan

TABLE 65. Objectives of Expenditures in the Social Sciences and Humanities, by Department or Agency, 1987-88(e)

Department or agency	Advancement of science	Communications	Energy and fuels	Health	Industrial and economic development		
			Other		Agriculture	Manufacturing	Other
	($'000)						
Departments:							
Agriculture	-	-	-	-	515	-	-
Consumer and Commercial Affairs	-	-	-	-	-	-	-
Economic Development and Trade	-	-	-	-	-	-	-
Education	126	-	-	-	-	-	-
Executive Council	198	-	72	-	118	-	-
Finance	-	-	-	-	-	-	-
Health	-	-	-	1,713	-	-	-
Human Resources, Labour and Employment	-	-	-	-	-	-	-
Justice	-	-	-	-	-	-	-
Parks, Recreation and Culture	12	-	-	-	-	-	-
Public Service Commission	-	-	-	-	-	-	-
Rural Development	-	-	-	-	-	-	-
Saskatchewan Telephones	-	16	-	-	-	-	-
Science and Technology	-	-	-	-	-	316	-
Social Services	-	-	-	113	-	-	-
Tourism, Small Business and Co-operative Development	-	-	-	-	-	-	353
Urban Affairs	-	-	-	-	-	-	-
Sub-total	336	16	72	1,826	633	316	353
Agencies:							
Highway Traffic Board	-	-	-	-	-	-	-
Saskatchewan Archives Board	-	-	-	-	-	-	-
Saskatchewan Assessment Management Agency	-	-	-	-	-	-	-
Saskatchewan Housing Corporation	-	-	-	-	-	-	-
Saskatchewan Property Management Corporation	-	-	-	-	-	-	-
Sub-total	-	-	-	-	-	-	-
TOTAL	**336**	**16**	**72**	**1,826**	**633**	**316**	**353**

Government of Saskatchewan

TABLE 65. Objectives of Expenditures in the Social Sciences and Humanities, by Department or Agency, 1987-88(e) - Concluded

Department or agency	Social development					Transportation	Other	Total
	Culture, sport and recreation	Education	Human resources	Urban and regional studies	Other			
	($'000)							
Departments:								
Agriculture	-	-	272	-	-	-	-	787
Consumer and Commercial Affairs	-	-	-	-	17	-	23	40
Economic Development and Trade	-	-	-	-	-	-	-	-
Education	874	1,069	1,834	-	-	-	-	3,903
Executive Council	-	-	-	-	-	-	-	388
Finance	-	-	159	-	36	-	1,479	1,674
Health	-	-	-	-	-	-	-	1,713
Human Resources, Labour and Employment	-	476	231	-	39	-	-	746
Justice	-	-	-	-	758	-	-	758
Parks, Recreation and Culture	139	-	-	-	210	-	-	361
Public Service Commission	-	-	130	-	-	-	-	130
Rural Development	-	-	-	22	-	22	-	44
Saskatchewan Telephones	-	-	-	-	-	-	-	16
Science and Technology	-	-	-	-	-	-	-	316
Social Services	-	-	-	-	3,107	-	-	3,220
Tourism, Small Business and Co-operative Development	-	-	-	-	-	-	-	353
Urban Affairs	-	-	-	400	-	-	-	400
Sub-total	1,013	1,545	2,626	422	4,167	22	1,502	14,849
Agencies:								
Highway Traffic Board	-	-	-	-	-	-	-	-
Saskatchewan Archives Board	805	-	-	-	-	-	-	805
Saskatchewan Assessment Management Agency	-	-	-	-	-	-	-	-
Saskatchewan Housing Corporation	-	-	-	40	141	-	-	181
Saskatchewan Property Management Corporation	-	-	-	-	-	-	55	55
Sub-total	805	-	-	40	141	-	55	1,041
TOTAL	**1,818**	**1,545**	**2,626**	**462**	**4,308**	**22**	**1,557**	**15,890**

Government of Saskatchewan

TABLE 66. Objectives of Expenditures in the Social Sciences and Humanities, by Activity, 1987-88(e)

Objective	Intramural		Extramural		Total
	Research and development	Related scientific activities	Research and development	Related scientific activities	
	($'000)				
Advancement of science	75	63	-	198	336
Communications	-	-	-	16	16
Energy and fuels:					
Other	-	-	72	-	72
Health	-	1,504	196	126	1,826
Industrial and economic development:					
Agriculture	-	258	118	257	633
Manufacturing	-	316	-	-	316
Other	-	74	-	279	353
Social development:					
Culture, sport and recreation	-	944	-	874	1,818
Education	-	1,469	-	76	1,545
Human resources	-	2,233	-	393	2,626
Urban and regional studies	-	322	-	140	462
Other	100	1,659	-	2,549	4,308
Transportation	-	22	-	-	22
Other	-	1,550	-	7	1,557
TOTAL	**175**	**10,414**	**386**	**4,915**	**15,890**

APPENDIX

DEFINITIONS

This report covers those scientific and technological activities which involve the generation, dissemination and application of new scientific and technological knowledge. The central activity is research and experimental development (R&D). In addition, there are a number of related scientific activities (RSA) which are considered in less detail.

R&D is creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of humans, their culture and society and the use of this stock of knowledge to devise new applications. It requires the acquisition of knowledge and not just information. New knowledge involves the integration of newly acquired information into existing hypotheses, the formulation and testing of new hypotheses or the re-evaluation of existing observations.

The major **related scientific activities** are technical surveys, statistical surveys, information services, special services and studies, and museum services. Statistical surveys, information services and museum services are largely self-explanatory.

Technical surveys are activities directed towards the exploration and systematic description of the earth and its natural resources. The activities include the gathering, processing, collating and analyzing of data on natural phenomena except when part of a research project of a museum service. The preparation of maps and survey reports, their printing and cataloguing, are also included.

Special services and studies in the natural sciences are activities directed towards the establishment of national and provincial standards for materials, devices, products and processes; the calibration of secondary standards; non-routine quality testing; feasibility studies and demonstration projects. In the social sciences, special services and studies are systematic investigations carried out in order to provide information needed for planning or policy formulation, including feasibility studies and demonstration projects.

DEFINITIONS - Concluded

Activities are either natural sciences or social sciences and humanities. **Natural sciences** consist of disciplines concerned with the understanding, exploring, developing or utilizing the natural world. Included are the engineering, mathematical, environmental, life and physical sciences. **Social sciences and humanities** include all disciplines involving the study of human actions and conditions and the social, economic and institutional mechanisms affecting humans. Included are such disciplines as anthropology, business administration and commerce, communications, criminology, demography, economics, geography, history, languages, literature and linguistics, law, library science, philosophy, political science, psychology, religious studies, social work, sociology and urban and regional studies.

Five **performing sectors** are identified besides the Saskatchewan Research Council. Intramural refers to the provincial department or agency performing a scientific activity. Industry is largely private corporations but also includes crown corporations with a commercial function (e.g., power utilities) and industrial research institutes not controlled by another institution. Consultants providing scientific and engineering services are also included. Universities cover post secondary educational institutions and affiliated teaching and research facilities. Hospitals and health organizations are health organizations such as the Heart Foundation and hospitals which do not belong to the universities sector. Other includes non-resident performers of scientific activities funded by the provincial government, as well as recipients not covered elsewhere such as the Federal Government, other provincial departments and individuals.

Expenditures are either **current** or **capital.** Current expenditures include those costs for personnel, transportation and communications, information, professional and special services, rentals, purchased repair and upkeep, utilities, materials and supplies. Capital expenditures are those on the construction and acquisition of land, buildings, machinery and equipment. Total expenditures include current plus capital.

THE RESPONDENTS

Various changes have been made to the structure and organization of several provincial government departments beginning in December of 1986. The survey report itself does not reflect these adjustments until the estimate year 1987-88.
The reorganization is as follows:

Previous Department	Amalgamated With	New Department Name
Advanced Education and Manpower	Education	Education
Co-operation and Co-operative Development	Tourism and Small Business	Tourism, Small Business and Co-operatives
Culture and Recreation	Parks and Renewable Resources	Parks, Recreation and Culture
Education	Advanced Education and Manpower	Education
Employment Development Agency	Labour	Human Resources, Labour and Employment
Finance	Revenue and Financial Services	Finance
Indian and Native Affairs Secretariat	Labour	Human Resources, Labour and Employment
Labour	...	Human Resources, Labour and Employment
Public Safety (Division of Labour)	Environment	Environment and Public Safety
Environment	...	Environment and Public Safety
Parks and Renewable Resources	Culture and Recreation	Parks, Recreation and Culture
Revenue and Financial Services	Finance	Finance
Supply and Services	...	Saskatchewan Property Management Corporation
Tourism and Small Business	Co-operation and Co-operative Development	Tourism, Small Business and Coo-operatives
Saskatchewan Assessment Authority	...	Saskatchewan Assessment Management Agency
Women's Secretariat	Labour	Human Resources, Labour and Employment
Senior's Bureau (Division of Social Services)	Labour	Human Resources, Labour and Employment

Any departments not mentioned above have not been affected by the reorganization. Statistics Canada has made every effort to display data for the estimate year 1987-88 in the best way possible in order to reflect amalgamations of individual departments. The Co-ordinators and descriptions of individual departmental activities are displayed for the survey year 1986-87.

RESPONDENTS - Continued

Advanced Education and Manpower: Co-ordinator - Jim Peck 787-7383
Activities include the development and implementation of various post-secondary and adult education programs sponsored from the needs and assessment studies. Emphasis has been placed on computer assisted learning projects, software development and career information systems. Studies are completed through several internal branches and a variety of technical institutes.

Agriculture: Co-ordinator - Connie Lambert 787-5168
Activities are categorized in both the natural and social sciences. Work in the natural sciences is focussed mainly on development, analysis and resolution of various agricultural problems and yield improvement requirements. Expenditures have increased from 1985-86 by just under 15 million dollars in 1986-87 and are expected to rise by another 6 million dollars for 1987-88. This tremendous increase is largely due to the concentrated funding received from the Saskatchewan Agriculture Development Fund. Activities in the social sciences are carried out by the Economics Branch and deal with supporting feasibility, policy and economic studies.

Cancer Foundation: Co-ordinator - Valerie J. Lusk 585-1831
Research and development is performed by the Physics and Medical Services departments of the Foundation. Activities are related to the department and implementation of improvements in cancer treatment as well as occupational hazard studies and computerized control of the treatment process.

Consumer and Commercial Affairs: Co-ordinator - Ron Zukowsky 787-3895
The Planning and Policy Branch supports RSA in the social sciences. Some projects include price monitoring of selected economic activities and the creation of background research for policy development in gaming, financial services and consumer protection.

Co-operation and Co-operative Development: Co-ordinator - Andrew Lindsay 787-5800
The department is involved in development of legislation, regulations, manuals and models for co-operatives in the province. They also provide financial support to the University of Saskatchewan's Co-operative College of Canada and have in turn helped to establish the Centre for the Study of Co-operatives.

Culture and Recreation: Co-ordinator - David Baron 787-2814
The Life and Earth Science units of the Museum of Natural History represent the natural science expenditures of this department. Activities include the collection, cataloguing, preparation and preservation of a multitude of animal specimens. In the social sciences, the report includes expenditures of the Archaeology/Ethanology Curatorial unit of the museum and the Heritage Resources Branch. Operation of Collections Registration Program, curation, planning of the new Archaeology/Ethanology Gallery, historical/archaeological research and heritage conservation planning are some of the activities the department is involved in.

RESPONDENTS - Continued

Economic Development and Trade: Co-ordinator - Barry Gunther 787-7838

The Policy Co-ordination Branch submitted a nil response for the current survey year as they felt they no longer conducted any scientific or technological activities with respect to the definition guidelines.

Education: Co-ordinator - Bob Arkell 787-6057

Several divisions within the department are engaged in RSA: the Official Minority Language Office, Community Development, Special Education, Planning and Evaluation, Student Services and Regional Offices #1 and #4. During 1986-87 the major initiatives of the department were focussed around the development of a core curriculum policy, reviewing vocational-technical education and evaluating the Education Development Fund performance.

Employment Development Agency: Co-ordinator - Dave Argue 787-6438

Reporting units include Policy Analysis and Economic Analysis. RSA activities in the social sciences revolve around the following issues: evaluation of various job creation programs, development of employment strategies, human resource requirement studies and their relationship to technical/economic change, labour market reports, forecasting demands and the provincial input to the Canadian Occupational Projection System.

Energy and Mines: Co-ordinator - Don McFadyen 787-2523

Funding for scientific activities is provided by the Federal Department of Energy, Mines and Resources (43%), the Saskatchewan Heritage Fund (53%) and the department (4%). The federal government supports the Heavy Oil Agreement Program and the Heavy Oil/Fossil Fuels Research Program. The Saskatchewan Research Council is the major performer of R&D in 1986-87 funded by this department. A significant drop in this activity has been forecast for 1987-88.

Environment: Co-ordinator - R.E. Walker 787-6171

Natural science activities are carried out through the following branches: Water Pollution, Air Pollution, Mines Pollution, Land Protection and Co-ordination and Assessment. Research and Development, Technical Surveys and Special Services and Studies apply to the issue of water quality, acid precipitaion, uranium leach tailing disposal, waste management, ecological reserves and sensitive terrain protection guidelines.

Executive Council: Co-ordinator - Miklos Barabas 787-6317

The Council supports both R&D and RSA in the social sciences through extramural payments. Recipients include the Canadian Plains Research Centre - University of Regina, University of Saskatchewan and various other administrative institutes. Funding supports projects such as resource development, techno-economical and agriculture economic studies and public sector research.

Finance: Co-ordinator - Michael Shaw 787-6739

The intramural research activities of the Department of Finance centre around economic analysis and policy research related to resource allocation, taxation and investment.

RESPONDENTS - Continued

Health: Co-ordinator - Jim Wolstenholme 787-3144

Included in this report are: Mental Health Services Branch, Laboratory and Disease Control Services Branch, Provincial Laboratories, Ambulance Services Unit, Saskatchewan Prescription Drug Plan, Medical Care Insurance Commission, Alcohol and Drug Abuse Commission, Policy Research and Management Services Branch, and the Saskatchewan Health Research Board. Eighty percent of the expenditures are in the natural sciences and 65% of the total science expenditure.

Highways and Transportation: Co-ordinator - A.T. Horosko 787-4781

Research and development in the natural sciences is carried out by the Technical Research Branch and the Transportation Systems Branch. Related scientific activities are carried out by the Transportation Policy Branch, Transportation Systems Branch, Geotechnical and Materials Testing Branch, Traffic Safety Engineering Branch and the Planning Support Branch. Fields of study include asphalt technology, truck stability, safety barrier design, prevention of trucking accidents, performance assessment of existing bridges and the measurement of reflective characteristics of pavement markings and traffic sign materials.

Highway Traffic Board: Co-ordinator - R. Paragg 787-4257

The Highway Traffic Board is presently involved in operations related activities and therefore submitted a nil response with respect to the performance of any scientific and technological activities.

Indian and Native Affairs Secretariat: Co-ordinator - Lorri Lampard 787-6264

The Secretariat funds related scientific activities in the social sciences. The Association of Metis and Non-Status Indians of Saskatchewan is the major performer of extramural activities in the area of constitutional research. The principal mandate of the secretariat is the constitutional amendment of Aboriginal Rights.

Justice: Co-ordinator - Lyle Garinger 787-3481

Policy, Planning and Evaluation Branch is involved in policy development within the department of Justice. Recently completed and ongoing projects include Spouse Abuse Study - creation of a major database of offence statistics, Victims Service Report, Provincial Court Utilization Study, Crime Prevention Policy, Managing Human Performance Evaluation, Alternative Dispute Resolution and Child Abuse Protocol Evaluation. Other branches included in this report: Systems Branch, Policing Branch, Communications Branch and the Corrections Division.

Labour: Co-ordinator - Dave Argue 787-2419

Science activities are conducted by several branches including Policy, Planning and Research, Labour Standards, Pensions, Occupational Health and Safety, and Administration. Activities include Survey of Wages and Working Conditions, Analysis and monitoring of Provincial Collective Bargaining Agreements, Labour Force Statistics, Labour Standards Research, Pensions Research, Review of Technical Safety Standards and Regulations.

RESPONDENTS - Continued

Parks and Renewable Resources: Co-ordinator - Sharon Coffin 787-2478

Natural science activities are carried out by eight major branches: Construction Services, Regional Operations, Fisheries, Parks, Wildlife, Forestry, Forest Fire Control and Management Services. Seventy-three percent of the activities are carried out intramurally.

Public Service Commission: Co-ordinator - Glenda Schultz 787-7503

Social science activities are carried out by the Affirmative Action Branch, Human Resource Co-ordination Office, Employee Relations Branch, Classification Branch and Compensation Branch.

Revenue and Financial Services: Co-ordinator - Bill Hoover 787-6555

The Tax Policy and Monitoring Branch is involved in research into the legislation, policy application and enforcement of consumption taxes. The Senior Pension and Benefits Analyst researches, analyzes and reports on the implications of changes to the various pension and benefits plans administered by the department. The Financial Management Branch conducts research required for the development of policy and procedures in the areas of accounting and reporting for the Provincial Comptroller and for Treasury Board. The Saskatchewan Pension Plan performs and reports on various marketing research.

Rural Development: Co-ordinator - Walter Antonio 787-2720

In the natural sciences the Planning and Research Branch conducts traffic volume studies which are used to classify municipal roads in various road programs that are eligible for provincial construction and maintenance grants. In the social sciences a number of studies were performed including: Mill Rate Survey, Organized Hamlet Reserve Accounts, Unconditional Revenue Sharing Grant Options, Oil Surface - Maintenance Assistance, Gravel Expenditures in Rural Municipalities and Road Rationalization Impact on Revenue Sharing Grants.

Saskatchewan Archives Board: Co-ordinator - Trevor Powell 787-4066

Under **The Archives Act**, the Saskatchewan Archives Board is responsible for appraising, acquiring, preserving, arranging, describing, making accessible and encouraging the use of documentary records in all media from both official and private sources bearing on all aspects of the history of Saskatchewan. With the exception of the reference unit, all units are engaged in archives (or museum) services. During 1986-87, the Board received grants from the Department of Education, Minority Language Office for the Fransaskois project, from the Canadian Council of Archives for the photograph backlog reduction project and from the National Archives of Canada for CBC materials. The City of Regina and the City of Saskatoon also provide annual grants to the Saskatchewan Archives Board which in turn hires staff and purchases archival supplies to operate an archival service for the two cities. These archives were assisted by grants from the Canadian Council of Archives.

Saskatchewan Assessment Authority: Co-ordinator - Mr. Donald Koop 787-7298

The Policy and Research Branch conducts the investigation into the relationship between long term yield information from Saskatchewan Crop Insurance returns and the productivity index based on climate, soil texture and soil profile ratings for different soil associations across the province.

RESPONDENTS - Continued

Saskatchewan Crop Insurance Corporation: Co-ordinator - Merv M. Ross 728-7244

The Research Division conducts the following natural science activities: Yield Survey - mailout survey to all contract holders to determine average crop yields on area basis; Soil Class Yield Analysis - review of productivity ratings assigned to soil types; Weather Modelling - use of weather based yield model to predict forage yields; Remote Sensing - use of remote sensing technology to indentify field boundaries and determine acreage; New Crops - background and yield studies for new crops.

Saskatchewan Housing Corporation: Co-ordinator - Ron Styles 787-4200

The Policy and Planning Branch oversee a number of related scientific activities including the Survey of Tenants in Public Housing, Analysis of Housing Market in Various Centres, Examination of Housing Affordability and an Examination of Housing Costs.

Saskatchewan Library: Co-ordinator - Ronald C. McMahon 787-6327

The Saskatchewan Bureau of Statistics transferred to this department in January 1986. Projects include: ongoing research and improved development of the Economic Accounts, improving the methodology of population projections, development of retail trade statistics for small areas of Saskatchewan, and the collection and dissemination of statistical data.

Saskatchewan Telephones: Co-ordinator - Terry Colin 787-5783

The Communications Policy Branch leads and/or co-ordinates activities associated with communications or telecommunications issues and/or projects.

Saskatchewan Water Corporation: Co-ordinator - Terry Federko 694-3915

Intramurally, Watershed Management conducts technical surveys and analysis of soil relating to water seepage from canals. The Resource Management unit is involved in hydrology studies.

Science and Technology: Co-ordinator - Royal Hinther 933-7209

Natural sciences departmental activities include: information collection and dissemination, industrial counselling, policy formulation, administration of R&D incentive contracts, statistical surveys and special services and studies. Social sciences departmental activities include: policy and program development related to provincial and federal governmental initiatives directed to encouraging the Advanced Technology industry in Saskatchewan largely through extramural activities.

Social Services: Co-ordinator - Margaret R. Nickleborough 787-5029

The majority of activities in this department are RSA and 68% are performed outside the department. Intramural activities include: the examination of social and demographic trends with implication for welfare system reform; the development of an automated assistance plan system; a needs assessment for non-government organizations; a data base on youth in preparation for implementation of the Young Offenders Act; the development of standards for Young Offenders program and program evaluations. Extramural activities are directed towards studies on physical and mental handicapping, seniors research, automated data generating systems and wage subsidies workshops.

RESPONDENTS - Concluded

Supply and Services: Co-ordinator - Gordon W. Heggitt 787-4873

In the natural sciences the Central Survey and Mapping Agency includes 3 branches with R&D and RSA: Control Survey Branch, Mapping Branch and Data Management Branch. The Administration Branch and the Purchasing Agency report RSA activity in the social sciences. Close to sixty percent of the science activities are performed by departmental personnel.

Tourism and Small Business: Co-ordinator - Peter Wyse 787-9549

The Business Information and Research Branch is involved in research related to the nature and extent of small business development and entrepreneurship as well as research on the market for tourism products and on opportunities for tourist development in different parts of the country. Sixty-nine percent is performed extramurally.

Urban Affairs: Co-ordinator - Ron Davis 787-2674

Municipal Finance Branch, Advisory Services Branch and Community Planning Branch report RSA in the social sciences. Seventy-four percent of the scientific activities are conducted intramurally. Activities include: studies related to municipal finance, urban development, municipal law, advisory services and training or municipal administrators, land use planning and long term community development.

Women's Secretariat: Co-ordinator - Dave Argue 787-2419

The Policy Analysis, Development and Coordination Unit is concerned with developing options for employment equity in the public sector, analysis of effects of economic policy on women, policy analysis and proposals to ensure equity in training and employment programs and research on female entrepreneurs.

INDICATORS OF PROVINCIAL SCIENTIFIC ACTIVITIES

1. Population and Income

Province	Population January/87 (1)		Personal income per capita 1985 (2)		Provincial Gross Domestic Product per capita 1985 (3)		Provincial Government NSE Expenditures per capita (1985-86)	
	(000)	Rank	($)	Rank	($)	Rank	($)	Rank
Newfoundland	579	9	10,552	10	10,770	9	26	5
Prince Edward Island	128	10	11,016	9	10,289	10	..	..
Nova Scotia	888	7	12,820	7	13,098	7	..	..
New Brunswick	722	8	11,910	8	12,220	8	31	3
Québec	6,657	2	14,959	4	16,317	6	..	..
Ontario	9,270	1	17,410	1	19,887	2	17	7
Manitoba	1,081	5	14,850	5	16,645	5	27	4
**Saskatchewan ..... **	**1,022**	**6**	**14,219**	**6**	**16,925**	**4**	**31**	**2**
Alberta	2,389	4	16,839	2	25,939	1	90	1
British Columbia	2,926	3	16,214	3	18,490	3	21	6
**Canada (4) ..... **	**25,735**		**15,851**		**18,510**			

(1) **Canadian Statistical Review**, Statistics Canada, Catalogue No. 11-003E, August 1987.

(2) **National Income and Expenditure Accounts, 1970-1985**, Statistics Canada, Catalogue No. 13-201.

(3) **Provincial Economic Accounts, Experimental Data, 1970-1985**, Statistics Canada, Catalogue No. 13-213.

(4) Includes the Yukon and Northwest Territories.

INDICATORS OF PROVINCIAL SCIENTIFIC ACTIVITIES

2. Universities

Province	Graduate students per ten thousand population (15 years and over) 1985-86 (1)		Sponsored research in universities per capita, 1985-86 (2)	
		Rank	($)	Rank
Newfoundland	15	7	21	8
Prince Edward Island	-	10	6	10
Nova Scotia	28	4	34	5
New Brunswick	12	9	17	9
Québec	33	1	34	4
Ontario	29	2	38	2
Manitoba	29	3	34	3
Saskatchewan	**14**	**8**	**31**	**6**
Alberta	27	5	41	1
British Columbia	22	6	25	7
Canada	**28**		**34**	

(1) Full-time enrolment for graduate degrees, per ten thousand population (15 years and over) **Universities Enrolment and Degrees, 1985-86,** Statistics Canada, Catalogue No. 81-204, and "Postcensal Estimate of Population by Sex and Age for Canada and the Provinces", June 1985, Population Estimates Section, Demography Division, Statistics Canada.

(2) **Financial Statistics of Universities and Colleges, 1985-86,** Canadian Association of University Business Officers.

INDICATORS OF PROVINCIAL SCIENTIFIC ACTIVITIES

3. Industry

Province	Value added by manufacturing activity per capita, 1984 (1)		Current intramural industrial R&D expenditures per employee in primary and secondary industry, 1985 (2)	
	($)	Rank	($)	Rank
Newfoundland	952	8	37	9
Prince Edward Island	771	10	91	7
Nova Scotia	1,941	5	59	8
New Brunswick	1,642	7	33	10
Québec	3,681	2	742	2
Ontario	5,497	1	1,044	1
Manitoba	2,028	4	128	6
Saskatchewan	**946**	**9**	**188**	**5**
Alberta	1,869	6	610	3
British Columbia	2,518	3	456	4
Canada (3)	**3,654**		**741**	

(1) **Manufacturing Industries of Canada; National and Provincial Areas, 1984,** Statistics Canada, Catalogue No. 31-203.

(2) Results of 1985 Industrial R&D survey, Science, Technology and Capital Stock Division, Statistics Canada and **The Labour Force, July, 1987,** Statistics Canada, Catalogue No. 71-001.

(3) Includes the Yukon and Northwest Territories.

INDICATORS OF PROVINCIAL SCIENTIFIC ACTIVITIES

4. Federal Government

Province	Expenditures on intramural natural science activities 1985-86 (1)	Federal personnel 1985-86 (1)	Contracts awarded by the Science Procurement Sector, Department of Supply and Services, 1986-87 (2)	
	($'000,000)	(Person-years)	Number	($'000,000)
Newfoundland	47	481	117	5
Prince Edward Island	7	132	12	--
Nova Scotia	113	1,628	319	10
New Brunswick	39	618	61	2
Québec	241 (3)	2,171 (3)	357	25
Ontario	314 (4)	4,454 (4)	1,210	115
Ottawa-Hull	616	9,796	...	...
Manitoba	101	1,699	139	6
Saskatchewan	48	710	94	9
Alberta	101	1,439	271	12
British Columbia	145	1,642	854	61
Canada (5)	1,795	24,911	3,458	247

(1) "Federal Scientific Establishments", Science, Technology and Capital Stock Division, Statistics Canada.
(2) Research and Development Bulletin, April 1987, Supply and Services.
(3) Excluding Hull.
(4) Excluding Ottawa.
(5) Includes the Yukon and Northwest Territories.

INDICATORS OF PROVINCIAL SCIENTIFIC ACTIVITIES

5. Provincial Research Organizations

Province	Total expenditures on science and technology, 1986 (1)	
	($'000)	Rank
Nova Scotia	6,503	7
New Brunswick	7,762	6
Québec	28,485	2
Ontario	24,809	3
Manitoba	5,365	8
Saskatchewan	14,335	4
Alberta	39,443	1
British Columbia	8,232	5
Total	134,934	

(1) "The Provincial Research Organizations, 1986", **Science Statistics**, Vol. 11, No. 10, Statistics Canada, Catalogue No. 88-001.

INDICATORS OF PROVINCIAL SCIENTIFIC ACTIVITIES

6. Gross Domestic Expenditures on R&D in Canada, by Performing Sector, by Province, 1985 (1)

Province	Federal government	Provincial government	Provincial research organization	Total government	Industry	University	Private non-profit	All sectors
	($'000,000)							
Newfoundland	34	1	-	35	4	28	-	67
Prince Edward Island	7	-	-	7	1	1	-	9
Nova Scotia	84	1	3	88	17	51	1	157
New Brunswick	32	2	2	36	28	24	1	89
Québec	212	42	18	272	793	345	34	1,444
Ontario	681	49	17	747	1,961	616	47	3,371
Manitoba	88	5	3	96	21	73	5	195
Saskatchewan	45	3	5	53	50	49	-	152
Alberta	79	18	28	125	252	207	-	584
British Columbia	109	13	2	124	195	128	3	450
Canada (2)	1,375	134	78	1,587	3,330	1,522	91	6,530

(1) "Estimates of Canadian R&D Expenditures, by Region 1979-1985", Science, Technology and Capital Stock Division, Statistics Canada.

(2) Includes the Yukon and Northwest Territories.

INDICATORS OF PROVINCIAL SCIENTIFIC ACTIVITIES

7. Gross Domestic Expenditures on R&D in Canada, by Funding Sector, by Province, 1985 (1)

Province	Federal government	Provincial government	Provincial research organization	Total government	Industry	University	Private non-profit	All sectors (3)
	($'000,000)							
Newfoundland	43	1	-	44	5	16	2	67
Prince Edward Island	7	-	-	7	1	1	-	9
Nova Scotia	110	4	-	114	15	21	5	157
New Brunswick	47	3	-	50	24	12	1	89
Québec	433	156	3	592	646	93	44	1,444
Ontario	1,128	108	3	1,239	1,615	242	103	3,371
Manitoba	113	12	-	125	21	35	11	195
Saskatchewan	73	13	-	86	42	15	5	152
Alberta	150	101	-	251	191	107	12	584
British Columbia	180	27	-	207	155	52	17	450
Canada (2)	2,289	425	6	2,720	2,721	594	200	6,530

(1) "Estimates of Canadian R&D Expenditures, by Region, 1979-1985", Science, Technology and Capital Stock Division, Statistics Canada.

(2) Includes the Yukon and Northwest Territories.

(3) Includes Foreign sources of funds.

INDICATORS OF PROVINCIAL SCIENTIFIC ACTIVITIES

8. Gross Domestic Expenditures on R&D in Saskatchewan, 1985 (1)

Funding sector	Performing sector							
	Government				Business enterprise	Higher education	Private non-profit	Total
	Federal	Provincial	SRC	Total				
	($'000,000)							
Government								
Federal	45	-	1	46	6	21	-	73
Provincial	-	3	3	6	1	6	-	13
SRC	-	-	-	-	-	-	-	-
Sub-total	45	3	4	52	7	27	-	86
Business enterprise	-	-	1	1	39	2	-	42
Higher education	-	-	-	-	-	15	-	15
Private non-profit	-	-	-	-	-	5	-	5
Foreign	-	-	-	-	4	-	-	4
Total	**45**	**3**	**5**	**53**	**50**	**49**	**-**	**152**

(1) Beginning in 1985 the GERD included R&D expenditures in both the Natural Sciences and Engineering and the Social Sciences and Humanities.

Source: "Estimates of Canadian Research and Development Expenditures by Region, 1979-1985", Science, Technology and Capital Stock Division, Statistics Canada, July 1987.

INDICATORS OF PROVINCIAL SCIENTIFIC ACTIVITIES

9. Federal Government Grants and Contracts to Industry for R&D in the Natural Sciences, by Selected Department/Program and Region, 1985-86

Department/Program	NFLD	PEI	NS	NB	QUE	ONT	NCR	MAN	SASK	ALTA	BC	CANADA (1)
	($'000,000)											
A. R&D Grants:												
Regional Industrial Expansion:												
Industrial and Regional Development Program	0.1	1.1	2.3	0.3	13.0	21.6	2.0	3.6	0.8	1.5	6.9	53.3
Defence Industry Productivity Program	-	-	--	-	77.4	13.4	1.7	-	-	1.7	6.5	100.7
Other	0.1	-	1.8	0.3	2.5	3.2	-	0.3	0.7	-	0.2	9.1
Sub-total	0.2	1.1	4.1	0.6	92.9	38.2	3.7	3.9	1.5	3.3	13.6	163.2
National Research Council:												
Industrial Research Assistance Program	0.7	0.5	1.1	1.3	7.6	14.6	1.5	1.1	1.4	2.8	4.7	37.2
Program for Industry/Laboratory Projects	--	0.2	0.6	-	3.6	9.0	4.8	0.1	0.1	0.7	2.6	21.8
Other	0.3	-	-	-	12.2	2.4	1.2	-	-	0.1	0.1	16.3
Sub-total	1.0	0.7	1.7	1.3	23.4	26.0	7.5	1.2	1.5	3.6	7.4	75.3
Other	-	1.0	1.9	21.1	8.8	3.5	5.1	0.8	1.4	0.1	0.4	44.2
Total	**1.2**	**2.8**	**7.8**	**23.0**	**125.1**	**67.7**	**16.3**	**5.9**	**4.4**	**7.0**	**21.4**	**282.7**
B. R&D Contracts:												
National Defence	0.1	-	2.9	0.1	9.5	15.9	30.3	1.5	--	1.1	3.6	65.0
National Research Council	-	-	0.1	-	1.8	9.7	8.6	0.1	2.2	0.2	0.1	22.9
Supply and Services	0.1	-	0.5	-	1.7	3.6	1.7	-	0.3	0.3	2.5	10.7
Other	1.2	0.1	2.2	1.2	15.9	16.3	9.1	2.0	1.5	4.4	9.4	63.4
Total	**1.4**	**0.1**	**5.7**	**1.3**	**28.9**	**45.5**	**49.7**	**3.6**	**4.0**	**6.0**	**15.6**	**162.0**
Total, grants and contracts	**2.6**	**2.9**	**13.5**	**24.3**	**154.0**	**113.2**	**66.0**	**9.5**	**8.4**	**13.0**	**37.0**	**444.7**

(1) Includes Yukon and Northwest Territories.

The data expressed here are regional representations and will not correspond to Canada aggregates shown in other Statistics Canada publications. Total may not add due to rounding.

Source: "Federal Government Science Expenditures by Region, 1981-82 to 1985-86", Science, Technology and Capital Stock Division, Statistics Canada, June 1987.

INDICATORS OF PROVINCIAL SCIENTIFIC ACTIVITIES

10. Federal Government Expenditures on Activities in the Natural Sciences, by Region and Selected Departments, 1985-86

Region	Agriculture	Energy, Mines and Resources	Environment	Fisheries and Oceans	Regional Industrial Expansion	National Research Council	Natural Sciences and Engineering Research Council	Other	Total
	($'000,000)								
Newfoundland	6	3	5	23	2	12	5	5	61
Prince Edward Island	6	2	-	-	2	1	-	-	11
Nova Scotia	10	13	12	62	6	9	12	26	150
New Brunswick	16	24	6	17	6	2	5	-	76
Québec (excludes NCR)	58	29	40	39	98	64	61	142	531
National Capital Region (NCR)	81	161	11	17	14	193	24	213	714
Ontario (exludes NCR)	48	25	135	15	42	41	118	210	634
Manitoba	22	3	15	11	5	12	10	56	134
Saskatchewan	26	10	12	-	2	13	10	6	79
Alberta	45	26	22	2	4	5	24	34	162
British Columbia	47	14	24	56	15	42	35	38	271
Canada (1)	365	313	301	242	196	394	304	731	2,846

(1) Includes Yukon and Northwest Territories.

Source: **"Federal Government Science Expenditures by Region, 1981-82 to 1985-86"**, Science, Technology and Capital Stock Division, Statistics Canada, June 1987.

INDICATORS OF PROVINCIAL SCIENTIFIC ACTIVITIES

11. Federal Government Intramural Expenditures on Activities in the Natural Sciences, by Region and Selected Departments, 1985-86

Region	Agriculture	Atomic Energy of Canada Ltd	Energy, Mines and Resources	Environment	Fisheries and Oceans	National Defence	National Research Council	Other	Total
	($'000,000)								
Newfoundland	6	-	2	5	22	-	10	2	47
Prince Edward Island	6	-	-	-	-	-	-	1	7
Nova Scotia	8	-	11	12	58	16	7	1	113
New Brunswick	15	-	1	6	16	-	-	1	39
Québec (excludes NCR)	54	-	15	38	38	40	35	21	241
National Capital Region (NCR)	76	-	153	11	17	16	176	167	616
Ontario (exludes NCR)	44	81	11	128	14	27	3	6	314
Manitoba	20	45	-	14	11	-	10	1	101
Saskatchewan	**22**	**-**	**6**	**11**	**-**	**-**	**8**	**1**	**48**
Alberta	44	-	22	21	-	13	-	1	101
British Columbia	45	-	10	22	50	10	7	1	145
Canada (1)	**340**	**126**	**234**	**287**	**226**	**122**	**256**	**204**	**1,795**

(1) Includes Yukon and Northwest Territories.

Source: **"Federal Government Science Expenditures by Region, 1981-82 to 1985-86"**, Science, Technology and Capital Stock Division, Statistics Canada, June 1987.

INDICATORS OF PROVINCIAL SCIENTIFIC ACTIVITIES

12. Federal Government Intramural Expenditures on R&D in the Natural Sciences, by Region and Selected Departments, 1985-86

Region	Agriculture	Atomic Energy of Canada Ltd	Energy, Mines and Resources	Environment	Fisheries and Oceans	National Defence	National Research Council	Other	Total
	($'000,000)								
Newfoundland	6	-	2	-	12	-	10	1	31
Prince Edward Island	6	-	-	-	-	-	-	1	7
Nova Scotia	8	-	10	1	35	16	7	1	78
New Brunswick	15	-	1	2	12	-	-	-	30
Québec (excludes NCR)	52	-	14	3	22	40	34	20	185
National Capital Region (NCR)	63	-	101	1	7	14	134	78	398
Ontario (exludes NCR)	42	75	9	28	2	27	3	4	190
Manitoba	16	42	-	1	10	-	10	2	81
Saskatchewan	22	-	6	5	-	-	8	1	42
Alberta	38	-	19	2	-	13	-	1	73
British Columbia	43	-	6	1	34	10	7	-	101
Canada (1)	**311**	**117**	**170**	**44**	**134**	**120**	**213**	**110**	**1,219**

(1) Includes Yukon and Northwest Territories.

Source: **"Federal Government Science Expenditures by Region, 1981-82 to 1985-86"**, Science, Technology and Capital Stock Division, Statistics Canada, June 1987.

INDICATORS OF PROVINCIAL SCIENTIFIC ACTIVITIES

13. Federal Government Personnel Engaged in Activities in the Natural Sciences, by Region and Selected Departments, 1985-86

Region	Agriculture	Atomic Energy of Canada Ltd	Energy, Mines and Resources	Environment	Fisheries and Oceans	National Defence	National Research Council	Other	Total
	(person-years)								
Newfoundland	102	-	-	83	221	-	59	16	481
Prince Edward Island	113	-	-	14	-	-	1	4	132
Nova Scotia	159	-	140	203	819	210	86	11	1,628
New Brunswick	294	-	1	112	201	-	3	7	618
Québec (excludes NCR)	487	-	1	550	164	597	182	190	2,171
National Capital Region (NCR)	1,455	-	2,147	77	275	262	2,811	2,769(1)	9,796
Ontario (exludes NCR)	745	1,640	31	1,298	203	436	39	62	4,454
Manitoba	361	922	1	252	141	-	9	13	1,699
Saskatchewan	400	-	6	183	-	-	115	6	710
Alberta	607	-	212	435	-	178	2	5	1,439
British Columbia	425	-	74	356	544	139	93	11	1,642
Canada (2)	5,148	2,562	2,618	3,678	2,568	1,822	3,400	3,115	24,911

(1) Includes 1,243 person-years for Health and Welfare Canada, 347 person-years for the Department of Communications and 354 person-years for National Museums of Canada.

(2) Includes Yukon and Northwest Territories.

Source: **"Federal Government Science Expenditures by Region, 1981-82 to 1985-86"**, Science, Technology and Capital Stock Division, Statistics Canada, June 1987.

PROVINCIAL CO-ORDINATORS

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Activities of the Section are described in a semi-annual report distributed free of charge entitled **Publications of the Science and Technology Statistics Program.** This report is published in June and December each year.

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88-201 Science and Technology Indicators, 1985 (annual)
88-202 Industrial Research and Development Statistics, 1985 (annual)
88-203 Resources for Research and Development in Canada, 1985 (annual)
88-204 Federal Scientific Activities, 1987-88 (annual)
88-205E Directory of Industrial Research and Development Facilities in Canada, 1986 (out of print)
88-206E Directory of Federal Government Scientific and Technological Establishments, 1986 (annual)
88-501E An Indicator of Excellence in Canadian Science (occasional)
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Working Papers

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Estimates of Canadian Research and Development Expenditures, by Region, 1979-1985
Estimation of Research and Development Expenditures in the Higher Education Sector, 1985-86
Federal Government Expenditures on Activities in the Natural Sciences and Engineering, 1963-64 to 1987-88
Federal Government Expenditures on Activities in the Social Sciences and Humanitites, 1970-71 to 1987-88
Federal Personnel Engaged in Scientific Activities, 1978-79 to 1987-88
Federal Government Science Expenditures by Region, 1981-82 to 1985-86